

1420
THE
NAUTICAL ALMANAC

AND
ASTRONOMICAL EPHEMERIS,
FOR THE YEAR 1775.

Published by ORDER of the

COMMISSIONERS OF LONGITUDE,

LONDON

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AND SOLD BY

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M DCC LXXIV.
[Price Three Shillings and Six Pence.]

EXTRACT from the Act of Parliament
concerning the Longitude, made in the
Fifth Year of the Reign of his present
Majesty.

WHEREAS the Publication of Nautical Almanacs constructed by proper Persons, under the Direction of the said Commissioners, would greatly contribute to make the said Lunar Tables more generally useful; Be it further Enacted, by the Authority aforesaid, That it shall and may be lawful to and for the said Commissioners to cause such Nautical Almanacs, or other useful Tables, to be constructed, and to print, publish, and vend, or cause to be printed, published, and vended, any Nautical Almanac or Almanacs, or other useful Table or Tables, which they, or the major Part of them, shall, from time to time, judge necessary and useful, in order to facilitate the Method of discovering the Longitude at Sea; any Law, Statute, exclusive Privilege, private Charter, or other Custom, to the contrary thereof notwithstanding.

And be it Enacted, by the Authority aforesaid, That no Person or Persons shall print, publish, or vend, or cause to be printed, published, or vended, any Nautical Almanac or Almanacs, or other Table or Tables constructed under the Direction of the said Commissioners, without being first licensed by the said Commissioners, or the major Part of them: And if any Person or Persons not so licensed, or not being authorized by the Person or Persons so licensed by the said Commissioners, shall print, publish, or vend, or cause to be printed, published, or vended, any such Nautical Almanac or Almanacs, or other Table or Tables, every such Person or Persons shall, for every Copy of such Nautical Almanac or Table so printed, published, or vended, forfeit and pay the Sum of Twenty Pounds; to be recovered by Action of Debt, Bill, Plaint, or Information, in any of his Majesty's Courts of Record at *Westminster*; and that One Moiety of such Penalty and Forfeiture shall be to his Majesty, his Heirs and Successors, and the other Moiety to him or them that shall prosecute, inform, or sue for the same.



6-0-9

EXTRACT from the late Act of Parliament concerning the Longitude, made in the Tenth Year of the Reign of his present Majesty.

BE it Enacted by the KING's most Excellent Majesty, by and with the Advice and Consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the Authority of the same, That the said Commissioners constituted by the said several Acts before-mentioned for the Discovery of the Longitude at Sea, and for examining, trying, and judging of all Proposals, Experiments, and Improvements relating to the same, or any Five or more of them, shall have full Power to hear and receive any Proposal or Proposals that have been, or that shall hereafter be made to them for discovering the said Longitude at Sea; or for improving the said [Professor Mayer's] Lunar Tables; or for making any other Discovery or Discoveries, Improvement or Improvements, useful to Navigation; and in case the said Commissioners, or any Five or more of them, shall be so far satisfied of the Probability of any such Proposal, as to think it proper to make Experiment thereof, or of the Utility of such Discovery or Improvement, as to think the same deserving of Reward, they shall certify the same under their Hands and Seals to the Commissioners of the Navy for the Time being, together with the Names of the Person or Persons who shall be the Author or Authors of such Proposal or Proposals, or who shall make such Discovery or Discoveries, Improvement or Improvements; and, upon producing such Certificate, the said Commissioners of the Navy are hereby authorized and required to make out a Bill or Bills for any such Sum or Sums of Money, not exceeding in the Whole the Sum of Five thousand Pounds, as the said Commissioners for the Discovery of the said Longitude, or any Five or more of them, shall think necessary for making any Experiments, or for giving any Reward or Rewards, Sum or Sums of Money, to such Person or Persons as shall improve the said Lunar Tables, or shall make any Discovery or Discoveries, Improvement or Improvements useful to Navigation, in pursuance of this Act, or any of the said Acts herein before-mentioned, payable by the Treasurer of the Navy; which Sum or Sums of Money the Treasurer of the Navy for the Time being is hereby authorized and required to pay immediately to the Person or Persons mentioned in the said Certificate or Certificates, out of any Money that shall be in his the said Treasurer's Hands unapplied for the Use of the Navy: Provided always, That if any such Reward or Sum of Money shall exceed the Sum of One thousand Pounds; then, and in that Case, the same shall be certified under the Hands and Seals of the major Part of the said Commissioners for the Discovery of the said Longitude.

By the COMMISSIONERS appointed by Acts of Parliament for the Discovery of the Longitude at Sea, &c. and for examining, trying, and judging of all Proposals, Experiments, and Improvements relating to the same.

WHEREAS we have employed proper Persons to compute Nautical Almanacs and Astronomical Ephemerides for the Years 1775 and 1776, which will greatly contribute to make the Lunar Tables constructed by the late Professor MAYER of *Gottingen* (which you have already printed with our Authority) more generally useful; and whereas we think fit to employ you to print the said Nautical Almanacs and Astronomical Ephemerides: We do therefore, in pursuance of the Power vested in us by Act of Parliament, hereby license, authorize, and empower you to cause the same to be printed, together with such other useful Tables for facilitating the Method of discovering the Longitude at Sea, as shall have been constructed under our Direction, and will be delivered to you by the Reverend Mr. NEVIL MASKELYNE, his Majesty's Astronomer Royal at *Greenwich*; and for so doing this shall be your sufficient Warrant. Given under our Hands and Seals the 24th Day of *April* 1773.

To Mr. WILLIAM
RICHARDSON,
Printer in *Salisbury-*
court, Fleet-Street.

SANDWICH (L.S.)
FL. NORTON (L.S.)
C. HARDY (L.S.)
J. PRINGLE (L.S.)
N. MASKELYNE (L.S.)
T. HORNSBY (L.S.)
E. WARING (L.S.)
A. SHEPHERD (L.S.)
GREY COOPER (L.S.)
JOHN ROBINSON (L.S.)
P. STEPHENS (L.S.)
H. PALLISSER (L.S.)
J. SMITH (L.S.)

By Order of the Commissioners,

JOHN IBBETSON, Secretary.

By the COMMISSIONERS appointed by Acts of Parliament for the Discovery of the Longitude at Sea, &c. and for examining, trying, and judging of all Proposals, Experiments, and Improvements relating to the same.

WHEREAS we think fit to employ you to publish and vend, and to cause to be published and vended, the Nautical Almanacs and Astronomical Ephemerides for the Years 1775 and 1776, together with other useful Tables (constructed under our Direction) for facilitating the Method of discovering the Longitude at Sea, which will be printed by Mr. WILLIAM RICHARDSON of *Salisbury-court, Fleet-street*: We do therefore, in pursuance of the Power vested in us by Act of Parliament, hereby license, authorize, and empower you to publish and vend, and to cause to be published and vended, the said Nautical Almanacs and Astronomical Ephemerides, together with the other useful Tables above-mentioned. For which this shall be your sufficient Warrant. Given under our Hands and Seals the 24th Day of *April* 1773.

To Mr. JOHN NOURSE,
Bookseller in the *Strand*.

SANDWICH (L.S.)
FL. NORTON (L.S.)
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J. PRINGLE (L.S.)
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E. WARING (L.S.)
A. SHEPHERD (L.S.)
GREY COOPER (L.S.)
JOHN ROBINSON (L.S.)
PH. STEPHENS (L.S.)
H. PALLISSER (L.S.)
J. SMITH (L.S.)

By Order of the Commissioners,

JOHN IBBETSON, Secretary.

✂ A Licence was also granted to the like Effect to Mess.
JOHN MOUNT and THOMAS PAGE, Stationers on *Tower-hill*.

P R E F A C E.

THE Commissioners of Longitude, in pursuance of the Powers vested in them by Act of Parliament, present the Publick with the NAUTICAL ALMANAC and ASTRONOMICAL EPHEMERIS for the Year 1775, being the Ninth Impression, to be continued annually; a Work which must greatly contribute to the Improvement of Astronomy, Geography, and Navigation. This EPHEMERIS contains every Thing essential to general Use that is to be found in any Ephemeris hitherto published, with many other useful and interesting Particulars never yet offered to the Publick in any Work of this Kind. The Tables of the Moon had been brought by the late Professor MAYER of Gottingen to a sufficient Exactness to determine the Longitude at Sea, within a Degree, as appeared by the Trials of several Persons who made Use of them. The Difficulty and Length of the necessary Calculations seemed the only Obstacles to hinder them from becoming of general Use: To remove which this EPHEMERIS was made; the Mariner being hereby relieved from the Necessity of calculating the Moon's Place from the Tables, and afterwards computing the Distance to Seconds by Logarithms, which are the principal and only very delicate Part of the Calculus; so that the finding the Longitude by the Help of the EPHEMERIS is now in a Manner reduced to the Computation of the Time, an Operation equal to that of an Azimuth, and the Correction of the Distance on account of Refraction and Parallax, which is also rendered very easy by either of the Two Methods invented by Mr. LYONS and Mr. DUNTHORNE, and published among the Tables
requisite

P R E F A C E.

requisite to be used with the EPHEMERIS; or by either of the Two Methods annexed to the EPHEMERIS of 1772, being both Improvements of the Method which I formerly published in the BRITISH MARINER'S GUIDE and PHILOSOPHICAL TRANSACTIONS, the First by myself, and the Second by Mr. GEORGE WITCHELL; but still more so by the GENERAL TABLES for correcting the apparent Distance of the Moon and a Star or the Sun from the Effects of Refraction and Parallax, computed at great Expence by Order of the Commissioners of Longitude, and published under the Care of Dr. SHEPHERD, Plumian Professor of Astronomy and experimental Philosophy at CAMBRIDGE, in 1772.

By Desire of the Commissioners of Longitude, I drew up the Explanation and Use of the Articles contained in the EPHEMERIS, and the Instructions, with Examples, for finding the Longitude at Sea by the Help of the same. I also collected and calculated the Sixteen First Pages of Tables requisite to be used with the EPHEMERIS, and computed the Table of proportional Logarithms, which seemed to me absolutely necessary to clear this Method of any remaining Difficulty; and added Explanations of all the Tables, and a Correction, p. 49 and 50, which may be applied by the Curious to the Effect of Refraction on the Moon's Distance from a Star, found by Mr. LYONS, or any other Method, on account of the Barometer and Thermometer.

All the Calculations of the EPHEMERIS relating to the Sun and Moon were made from Mr. MAYER's last manuscript Tables, received by the Board of Longi-

P R E F A C E.

Longitude after his Decease, which have been printed under my Inspection, and published in 1770. The Calculations of the Planets were made from Dr. HALLEY's Tables; and the Eclipses of Jupiter's First and Second Satellites from the Tables of Mr. WARGENTIN, published by M. DE LA LANDE in 1759; and those of the Third and Fourth Satellites from Tables of the same farther improved by Mr. WARGENTIN, and annexed, the first, to the NAUTICAL ALMANAC of 1771; and the other to the CONNOISSANCE DES MOUVEMENTS CELESTES of 1766.

All the Articles of the EPHEMERIS were computed by Two separate Persons, and examined by a Third, except the Moon's Longitude, Latitude, Right Ascension, Declination, Semidiameter, and Parallax, which, for Noon, were computed by One Person, and for Midnight by another, and the Truth of these Calculations ascertained by means of Differences, which, for the Moon's Longitude, were carried as far as the Fourth Order.

NEVIL MASKELYNE,

ASTRONOMER ROYAL,

GREENWICH,

DEC. 20.

1773.

EXPLANATION of the Characters used in the EPHEMERIS.

The PLANETS, &c.

- | | |
|---|------------|
| ☉ The Sun. | ♂ Mars. |
| ☾ The Moon. | ♃ Jupiter. |
| ☿ Mercury. | ♄ Saturn. |
| ♀ Venus. | |
| ♊ The Moon's, or any other Planet's Ascending Node. | |
| ♋ The Descending Node. | |
| ♌ Conjunction, or Planets situated in the same Longitude. | |
| ♍ Opposition, or Planets situated in opposite Longitudes, or differing 6 Signs from each other. | |

Signs of the Zodiac.

- | | |
|-----------|----------------|
| ♈ Aries. | ♏ Libra. |
| ♉ Taurus. | ♐ Scorpio. |
| ♊ Gemini. | ♑ Sagittarius. |
| ♋ Cancer. | ♒ Capricornus. |
| ♌ Leo. | ♓ Aquarius. |
| ♍ Virgo. | ♈ Pisces. |

ECLIPSES for the YEAR 1775.

Feb. 15. ☽ eclipsed, invisible: H. M.
 Beginning — — — — 1. 32
 Middle — — — — 2. 56
 End — — — — 4. 20
 Digits eclipsed — — — — 6°. 32

March 1. ☉ eclipsed invisible:
 ☿ at 9^h. 34'. in 11°. 11'. of ♋; ☽'s Lat. 41'. South. At 9^h. 5'. 40". the ☉ will be centrally eclipsed on the Meridian in Lat. 52°. 35'. South, Long. 136°. 25'. West of Greenwich.

Aug. 10. ☽ eclipsed, invisible: H. M.
 Beginning — — — — 17. 42½
 Middle — — — — 19. 11
 End — — — — 20. 39½
 Digits eclipsed — — — — 10°. 0'. to the South.

Aug. 25. ☉ eclipsed, invisible:
 ☿ at 17^h. 6'. in 5°. 2°. 42'. ☽'s Lat. 44'. N. The ☉ will be centrally and annularly eclipsed on the Meridian at 16^h. 30'. in Lat. 68° N. and Long. 112°½ E. of Greenwich.

Obliquity

200 21 1

1775.		°	'	"		"
Jan. 1.	_____	23.	27.	58,5	_____	7,1
Apr. 1.	_____	23.	27.	58,7	_____	8,5
July 1.	_____	23.	27.	59,0	_____	9,9
Oct. 1.	_____	23.	27.	59,4	_____	11,1
Dec. 31.	_____	23.	27.	59,8	_____	12,3

[illegible]

— ECLIPSE for the Year 1775.

[illegible]

I. JANUARY 1775. [1]

Days of the Month.	Days of the Week.	Sundays, Holidays, &c.	Phases of the Moon.	
			D. H. M.	
1	Su.	1st Sunday after Christm. [Circumcision.]	New Moon	— 1. 12. 11
2	M.		First Quarter	— 8. 6. 5
3	Tu.		Full Moon	— 16. 7. 39
4	W.		Last Quarter	— 24. 7. 8
5	Th.	Epiphany.	New Moon	— 30. 22. 44
6	F.		Other Phenomena.	
7	Sa.			
8	Su.	1st Sunday after Epiphany. [Lucian.]	D.	
9	M.			
10	Tu.		5. $\odot \lambda$	$7^h. 42'.$
11	W.		$\odot \phi$	$17^h. 1'.$
12	Th.	Hil. Camb. Term. beg. Oxf. Term begins.	9. $\odot \mu$	Ceti $20^h. 24'.$
13	F.		11. $\odot \gamma$	$8 19^h. 0'.$
14	Sa.		$\odot$	2 ad $21^h. 38'.$
15	Su.		12. $\odot \alpha$	$8 2^h. 55'.$
16	M.	2d Sunday after Epiphany.	14. $\odot$	Stationary.
17	Tu.		17. $\odot$	Stationary.
18	W.		18. $\odot \nu$	$8 15^h. 23'.$
19	Th.		$\odot$	$\alpha 20^h. 24'.$
20	F.	2. Charlotte's birth-day [kept. Prisca.]	19. $\odot \rho$	$8 9^h. 30'.$
21	Sa.		$\odot$	enters $\approx$ at $15^h. 17'.$
22	Su.		20. $\odot \chi$	$8 1^h. 42'.$
23	M.		$\odot$	$\sigma 10^h. 58'.$
24	Tu.	Fabian. In 8 days of St. Agnes. [Hilary, 1 ret.]	21. $\odot \eta$	$17^h. 25'.$
25	W.		22. $\odot \gamma$	$17^h. 40'.$
26	Th.		$\odot$	$h 5^h. 40'.$
27	F.		25. $\odot \gamma$	$\approx 13^h. 38'.$
28	Sa.	3d Su. after Epiph. Vin. Hilary Term begins.	$\odot$	$\eta \approx 17^h. 29'.$
29	Su.		$\odot$	$\downarrow \approx 22^h. 32'.$
30	M.		26. $\odot \phi$	Serpent. $12^h. 45'.$
31	Tu.			
		Conversion of St. Paul.		
		From St. Hil. in 15 days, [2 ret.]		
		4th Sunday after Epiph.		
		K. Charles I. mart.		

[2]		J A N U A R Y 1775.						II.									
Days of the Month.	Days of the Week.	Sun's Longitude.				Sun's Right Asc. in Time.		Sun's Declin. South.		Equat. of Time. Add.		Diff.					
		S.	D.	M.	S.	H.	M.	S.	D.	M.	S.		M.	S.			
1	Su.	9.	11.	0.	44	18.	47.	54.	6	23.	0.	33	4	6.	7	28.	4
2	M.	9.	12.	1.	57	18.	52.	19.	6	22.	55.	15	4.	35.	1	27.	9
3	Tu.	9.	13.	3.	10	18.	56.	44.	2	22.	49.	30	5.	3.	0	27.	5
4	W.	9.	14.	4.	21	19.	1.	8.	2	22.	43.	18	5.	30.	5	27.	1
5	Th.	9.	15.	5.	34	19.	5.	32.	0	22.	36.	40	5.	57.	6	26.	6
6	F.	9.	16.	6.	45	19.	9.	55.	2	22.	29.	34	6.	24.	2	26.	1
7	Sa.	9.	17.	7.	56	19.	14.	18.	0	22.	22.	1	6.	50.	3	25.	6
8	Su.	9.	18.	9.	6	19.	18.	40.	2	22.	14.	2	7.	15.	9	25.	0
9	M.	9.	19.	10.	16	19.	23.	1.	8	22.	5.	38	7.	40.	9	24.	4
10	Tu.	9.	20.	11.	24	19.	27.	22.	8	21.	56.	48	8.	5.	3	23.	8
11	W.	9.	21.	12.	32	19.	31.	43.	3	21.	47.	31	8.	29.	1	23.	2
12	Th.	9.	22.	13.	39	19.	36.	3.	1	21.	37.	49	8.	52.	3	22.	6
13	F.	9.	23.	14.	46	19.	40.	22.	3	21.	27.	43	9.	14.	9	21.	8
14	Sa.	9.	24.	15.	51	19.	44.	40.	7	21.	17.	11	9.	36.	7	21.	2
15	Su.	9.	25.	16.	56	19.	48.	58.	6	21.	6.	15	9.	57.	9	20.	5
16	M.	9.	26.	18.	0	19.	53.	15.	7	20.	54.	55	10.	18.	4	19.	8
17	Tu.	9.	27.	19.	3	19.	57.	32.	1	20.	43.	11	10.	38.	2	19.	1
18	W.	9.	28.	20.	6	20.	1.	47.	8	20.	31.	4	10.	57.	3	18.	4
19	Th.	9.	29.	21.	8	20.	6.	2.	8	20.	18.	34	11.	15.	7	17.	6
20	F.	10.	0.	22.	9	20.	10.	17.	0	20.	5.	42	11.	33.	3	16.	9
21	Sa.	10.	1.	23.	10	20.	14.	30.	5	19.	52.	24	11.	50.	2	16.	1
22	Su.	10.	2.	24.	11	20.	18.	43.	2	19.	38.	45	12.	6.	3	15.	4
23	M.	10.	3.	25.	11	20.	22.	55.	1	19.	24.	45	12.	21.	7	14.	6
24	Tu.	10.	4.	26.	10	20.	27.	6.	4	19.	10.	24	12.	36.	3	13.	8
25	W.	10.	5.	27.	9	20.	31.	16.	8	18.	55.	41	12.	50.	1	13.	1
26	Th.	10.	6.	28.	7	20.	35.	26.	5	18.	40.	37	13.	3.	2	12.	2
27	F.	10.	7.	29.	4	20.	39.	35.	3	18.	25.	13	13.	15.	4	11.	5
28	Sa.	10.	8.	30.	0	20.	43.	43.	3	18.	9.	29	13.	26.	9	10.	6
29	Su.	10.	9.	30.	56	20.	47.	50.	5	17.	53.	26	13.	37.	5	9.	8
30	M.	10.	10.	31.	51	20.	51.	57.	0	17.	37.	3	13.	47.	3	9.	1
31	Tu.	10.	11.	32.	45	20.	56.	2.	6	17.	20.	21	13.	56.	4	8.	2

III. JANUARY 1775. [3]

Days.	Semidia- meter of the Sun.	Time of D ^o passing the Meridian.	Hourly Motion of the Sun.	Logarithm of the Sun's Distance.	Place of the Moon's Node.
	M. S.	M. S.	M. S.		S. D. M.
1	16. 19, 2	1. 10, 9	2. 32, 9	9. 992666	5. 6. 44
7	16. 19, 1	1. 10, 6	2. 32, 8	9. 992722	5. 6. 25
13	16. 18, 8	1. 10, 1	2. 32, 8	9. 992851	5. 6. 6
19	16. 18, 2	1. 9, 5	2. 32, 6	9. 993077	5. 5. 47
25	16. 17, 5	1. 8, 9	2. 32, 3	9. 993398	5. 5. 28

Eclipses of the SATELLITES of JUPITER.

I. Satellite. Emerfions.			II. Satellite. Emerfions.			III. Satellite.		
Days	H. M. S.		Days	H. M. S.		Days	H. M. S.	
1	23. 59. 53		4	3. 26. 24		6	13 [*] 35. 16	I
3	18. 27. 56		7	16. 43. 50		6	15. 8. 14	E
5	12 [*] 56. 0		11	6 [*] 1. 16		13	17. 34. 5	I
7	7 [*] 24. 6		14	19. 18. 49		13	19. 7. 26	E
9	1. 52. 16		18	8 [*] 36. 28		20	21. 33. 36	I
10	20. 20. 30		21	19. 38. 3	I	20	23. 7. 17	E
12	14. 48. 39		21	21. 54. 14	E	28	1. 33. 45	I
14	9 [*] 16. 54		25	8 [*] 55. 58	I	28	3. 7. 49	E
16	3. 45. 11		25	11 [*] 12. 11	E			
17	22. 13. 32		28	22. 13. 54	I	IV. Satellite. Conj.		
19	16. 41. 53		29	0. 30. 9	E			
21	11 [*] 10. 18					1	22. 44. 11	Sup.
23	5. 38. 45					10	6. 52. 28	Inf.
25	0. 7. 14					18	16. 53. 58	Sup.
26	18. 35. 46					27	1. 1. 3	Inf.
28	13 [*] 4. 22							
30	7 [*] 33. 3							

[4] JANUARY 1775. IV.						
Days	Heliocentric Longitude.	Heliocentric Latitude.	Geocentric Longitude.	Geocentric Latitude.	Declination.	Passage over Merid.
	S. D. M.	D. M.	S. D. M.	D. M.	D. M.	H. M.
MERCURY.						
1	6. 24. 41	2. 32 N	8. 20. 2	0. 56 N	22. 10 S	22. 30
7	7. 13. 10	0. 20 N	8. 28. 13	0. 7 N	23. 20	22. 40
13	8. 0. 14	1. 45 S	9. 6. 55	0. 37 S	23. 54	22. 52
19	8. 16. 44	3. 36	9. 15. 59	1. 14	23. 44	23. 6
25	9. 3. 26	5. 10	9. 25. 26	1. 42	22. 45	23. 22
VENUS. Sup. ♂ 6 ^d . 22 ^h .						
1	9. 7. 42	1. 20 S	9. 9. 36	0. 34 S	23. 41 S	23. 55
7	9. 17. 11	1. 50	9. 17. 9	0. 46	23. 8	0. 1
13	9. 26. 40	2. 16	9. 24. 42	0. 58	22. 10	0. 7
19	10. 6. 10	2. 39	10. 2. 15	1. 8	20. 47	0. 13
25	10. 15. 39	2. 58	10. 9. 47	1. 16	19. 2	0. 19
MARS.						
1	4. 11. 45	1. 50 N	5. 13. 35	3. 11 N	9. 24 N	16. 14
7	4. 14. 24	1. 51	5. 14. 20	3. 23	9. 18	15. 51
13	4. 17. 2	1. 51	5. 14. 39	3. 35	9. 21	15. 26
19	4. 19. 41	1. 51	5. 14. 33	3. 46	9. 34	15. 0
25	4. 22. 19	1. 51	5. 13. 58	3. 57	9. 57	14. 33
JUPITER. ☐ 26 ^d . 21 ^h .						
1	1. 16. 23	1. 3 S	1. 6. 6	1. 10 S	12. 29 N	7. 27
7	1. 16. 55	1. 2	1. 6. 11	1. 8	12. 32	7. 1
13	1. 17. 28	1. 2	1. 6. 24	1. 6	12. 38	6. 36
19	1. 18. 0	1. 1	1. 6. 44	1. 4	12. 46	6. 12
25	1. 18. 32	1. 1	1. 7. 11	1. 2	12. 57	5. 49
SATURN.						
1	6. 2. 45	2. 22 N	6. 8. 41	2. 24 N	1. 15 S	17. 46
7	6. 2. 58	2. 22	6. 8. 49	2. 25	1. 16	17. 19
13	6. 3. 10	2. 23	6. 8. 54	2. 27	1. 17	16. 53
19	6. 3. 22	2. 23	6. 8. 55	2. 29	1. 15	16. 28
25	6. 3. 34	2. 23	6. 8. 52	2. 31	1. 13	16. 2

V. JANUARY 1775. [5]

Days of the Month.	Days of the Week.	Moon's Longitude at Noon.	Moon's Longitude at Midnight.	Moon's Latitude at Noon.	Moon's Latitude at Midnight.
		S. D. M. S.	S. D. M. S.	D. M. S.	D. M. S.
1	Su.	9. 3. 44. 58	9. 11. 24. 40	4. 28. 53 N	4. 7. 1 N
2	M.	9. 19. 4. 33	9. 26. 43. 17	3. 40. 40	3. 10. 24
3	Tu.	10. 4. 19. 5	10. 11. 51. 11	2. 36. 51	2. 0. 46
4	W.	10. 19. 18. 21	10. 26. 39. 53	1. 22. 57	0. 44. 12 N
5	Th.	11. 3. 55. 11	11. 11. 3. 48	0. 5. 11 N	0. 33. 20 S
6	F.	11. 18. 5. 37	11. 25. 0. 37	1. 10. 47 S	1. 46. 33
7	Sa.	0. 1. 48. 58	0. 8. 30. 58	2. 20. 16	2. 51. 33
8	Su.	0. 15. 6. 56	0. 21. 37. 17	3. 20. 2	3. 45. 30
9	M.	0. 28. 2. 26	1. 4. 22. 55	4. 7. 45	4. 26. 43
10	Tu.	1. 10. 39. 5	1. 16. 51. 34	4. 42. 11	4. 54. 12
11	W.	1. 23. 0. 41	1. 29. 6. 53	5. 2. 41	5. 7. 37
12	Th.	2. 5. 10. 42	2. 11. 12. 21	5. 9. 4	5. 7. 4
13	F.	2. 17. 12. 21	2. 23. 10. 51	5. 1. 41	4. 52. 59
14	Sa.	2. 29. 8. 15	3. 5. 4. 43	4. 41. 10	4. 26. 16
15	Su.	3. 11. 0. 34	3. 16. 55. 58	4. 8. 31	3. 48. 5
16	M.	3. 22. 51. 9	3. 28. 46. 20	3. 25. 11	3. 0. 3
17	Tu.	4. 4. 41. 41	4. 10. 37. 23	2. 32. 54	2. 4. 3
18	W.	4. 16. 33. 51	4. 22. 31. 10	1. 33. 45	1. 2. 20 S
19	Th.	4. 28. 29. 39	5. 4. 29. 40	0. 30. 3 S	0. 2. 41 N
20	F.	5. 10. 31. 37	5. 16. 35. 50	0. 35. 39 N	1. 8. 25
21	Sa.	5. 22. 42. 47	5. 28. 52. 56	1. 40. 38	2. 12. 3
22	Su.	6. 5. 6. 37	6. 11. 24. 28	2. 42. 11	3. 10. 43
23	M.	6. 17. 46. 48	6. 24. 14. 20	3. 37. 17	4. 1. 21
24	Tu.	7. 0. 47. 27	7. 7. 26. 12	4. 22. 44	4. 40. 49
25	W.	7. 14. 11. 10	7. 21. 2. 45	4. 55. 24	5. 6. 0
26	Th.	7. 28. 0. 47	8. 5. 5. 31	5. 12. 17	5. 14. 0
27	F.	8. 12. 16. 34	8. 19. 33. 45	5. 10. 50	5. 2. 38
28	Sa.	8. 26. 56. 25	9. 4. 24. 0	4. 49. 23	4. 31. 5
29	Su.	9. 11. 55. 30	9. 19. 29. 53	4. 7. 55	3. 40. 18
30	M.	9. 27. 5. 55	10. 4. 42. 25	3. 8. 41	2. 33. 37
31	Tu.	10. 12. 17. 53	10. 19. 51. 14	1. 55. 54	1. 16. 14

[6] JANUARY 1775. VI.

Days of the Month.	Days of the Week.	D's Age.	D's Pass- age over Merid.	D's Right Ascen. at Noon.	D's Right Asc. at Midn.	D's De- clination at Noon.	D's De- clination at Midn.
			H. M.	D. M.	D. M.	D. M.	D. M.
1	Su.	1	♂	273. 57	282. 2	18. 56 S	18. 52 S
2	M.	2	0. 29	290. 7	298. 7	18. 28	17. 43
3	Tu.	3	1. 31	306. 0	313. 44	16. 40	15. 19
4	W.	4	2. 30	321. 17	328. 38	13. 44	11. 57
5	Th.	5	3. 25	335. 47	342. 45	10. 0	7. 56
6	F.	6	4. 17	349. 31	356. 8	5. 48	3. 37 S
7	Sa.	7	5. 6	2. 36	8. 57	1. 25 S	0. 45 N
8	Su.	8	5. 53	15. 12	21. 23	2. 53 N	4. 57
9	M.	9	6. 39	27. 32	33. 38	6. 56	8. 48
10	Tu.	10	7. 25	39. 43	45. 49	10. 34	12. 11
11	W.	11	8. 11	51. 55	58. 3	13. 40	14. 59
12	Th.	12	8. 58	64. 12	70. 23	16. 7	17. 5
13	F.	13	9. 45	76. 36	82. 50	17. 51	18. 25
14	Sa.	14	10. 32	89. 6	95. 21	18. 47	18. 56
15	Su.	15	11. 19	101. 37	107. 51	18. 53	18. 37
16	M.	16	12. 6	114. 5	120. 16	18. 9	17. 30
17	Tu.	17	12. 52	126. 24	132. 30	16. 38	15. 36
18	W.	18	13. 37	138. 32	144. 32	14. 24	13. 2
19	Th.	19	14. 22	150. 29	156. 23	11. 32	9. 55
20	F.	20	15. 6	162. 15	168. 7	8. 11	6. 21
21	Sa.	21	15. 50	173. 59	179. 51	4. 26	2. 28 N
22	Su.	22	16. 35	185. 45	191. 44	0. 27 N	1. 35 S
23	M.	23	17. 21	197. 47	203. 56	3. 38 S	5. 40
24	Tu.	24	18. 10	210. 12	216. 38	7. 39	9. 35
25	W.	25	19. 2	223. 13	229. 59	11. 24	13. 7
26	Th.	26	19. 57	236. 57	244. 7	14. 40	16. 1
27	F.	27	20. 56	251. 30	259. 4	17. 9	18. 2
28	Sa.	28	21. 57	266. 47	274. 38	18. 37	18. 53
29	Su.	29	22. 59	282. 35	290. 33	18. 49	18. 25
30	M.	1	♂	298. 31	306. 25	17. 41	16. 37
31	Tu.	2	0. 1	314. 12	321. 52	15. 16	13. 40

VII. JANUARY 1775. [7]

Days of the Month.	Days of the Week.	Semidr. D at Noon.	Semidr. D at Mid-night.	Hor. Par. D at Noon.	Hor. Par. D at Midnight.	Propert. Lo. gar. at Noon.	Propert. Lo. gar. at Midn.
		M. S.	M. S.	M. S.	M. S.		
1	Su.	16. 44	16. 45	61. 25	61. 30	4670	4664
2	M.	16. 45	16. 44	61. 30	61. 25	4664	4670
3	Tu.	16. 41	16. 38	61. 15	61. 1	4682	4698
4	W.	16. 33	16. 27	60. 43	60. 22	4719	4745
5	Th.	16. 20	16. 13	59. 58	59. 32	4773	4805
6	F.	16. 6	15. 58	59. 5	58. 37	4838	4872
7	Sa.	15. 50	15. 43	58. 9	57. 42	4907	4941
8	Su.	15. 36	15. 29	57. 15	56. 50	4975	5006
9	M.	15. 23	15. 17	56. 26	56. 4	5037	5065
10	Tu.	15. 11	15. 6	55. 44	55. 26	5091	5115
11	W.	15. 2	14. 58	55. 9	54. 55	5137	5155
12	Th.	14. 55	14. 52	54. 43	54. 32	5171	5186
13	F.	14. 49	14. 47	54. 24	54. 16	5197	5207
14	Sa.	14. 46	14. 45	54. 11	54. 7	5214	5219
15	Su.	14. 44	14. 44	54. 5	54. 3	5222	5225
16	M.	14. 44	14. 44	54. 4	54. 5	5223	5222
17	Tu.	14. 45	14. 46	54. 8	54. 12	5218	5213
18	W.	14. 48	14. 50	54. 18	54. 25	5205	5195
19	Th.	14. 52	14. 55	54. 33	54. 43	5185	5171
20	F.	14. 57	15. 1	54. 54	55. 7	5157	5140
21	Sa.	15. 5	15. 9	55. 22	55. 37	5120	5100
22	Su.	15. 14	15. 19	55. 55	56. 14	5077	5053
23	M.	15. 25	15. 31	56. 36	56. 58	5025	4996
24	Tu.	15. 38	15. 45	57. 22	57. 47	4966	4934
25	W.	15. 52	15. 59	58. 12	58. 38	4903	4871
26	Th.	16. 6	16. 13	59. 4	59. 30	4839	4808
27	F.	16. 19	16. 26	59. 54	60. 17	4778	4751
28	Sa.	16. 31	16. 36	60. 37	60. 54	4727	4707
29	Su.	16. 39	16. 42	61. 8	61. 17	4690	4679
30	M.	16. 43	16. 43	61. 22	61. 23	4673	4672
31	Tu.	16. 42	16. 40	61. 18	61. 8	4678	4690

[8] J A N U A R Y 1775. VIII.

Distances of ☽'s Center from Stars, and from ☉ east of her.

Days.	Stars Names.	Noon.	3 Hours.	6 Hours.	9 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
3	α Pegasi.	47. 59. 19	46. 19. 43	44. 41. 11	43. 3. 50
4		35. 19. 39			
4	α Arietis.	75. 11. 47	73. 24. 13	71. 37. 5	69. 50. 23
5		61. 3. 56	59. 20. 14	57. 37. 7	55. 54. 37
6		47. 31. 40	45. 53. 12	44. 15. 31	42. 38. 39
7		34. 48. 26			
7	Aldeba- ran.	64. 43. 51	63. 2. 32	61. 21. 38	59. 41. 9
8		51. 24. 40	49. 46. 31	48. 8. 44	46. 31. 19
9		38. 29. 23	36. 53. 58	35. 18. 51	33. 44. 2
10		25. 54. 16	24. 21. 4	22. 48. 7	21. 15. 23
11		13. 35. 12			
11	Pollux.	58. 11. 32	56. 42. 11	55. 13. 3	53. 44. 8
12		46. 23. 17	44. 55. 53	43. 28. 47	42. 1. 57
13		34. 52. 24			
13	Regulus.	69. 37. 37	68. 8. 13	66. 38. 54	65. 9. 38
14		57. 44. 11	56. 15. 15	54. 46. 21	53. 17. 29
15		45. 53. 28	44. 24. 43	42. 55. 58	41. 27. 14
16		34. 3. 28	32. 34. 41	31. 5. 53	29. 37. 3
17		22. 12. 37	20. 43. 39	19. 14. 40	17. 45. 39
18	Spica 𐌆	64. 6. 20	62. 37. 21	61. 8. 20	59. 39. 14
19		52. 12. 59	50. 43. 32	49. 14. 0	47. 44. 24
20		40. 15. 20	38. 45. 19	37. 15. 14	35. 45. 6
21		28. 13. 50	26. 43. 35	25. 13. 24	23. 43. 19
22		16. 17. 36			
22	Antares.	61. 52. 59	60. 20. 31	58. 47. 53	57. 15. 5
23		49. 28. 21	47. 54. 27	46. 20. 23	44. 46. 9
24		36. 53. 7	35. 18. 20	33. 43. 36	32. 8. 56
22	The Sun.	117. 15. 35	115. 49. 6	114. 22. 22	112. 55. 22
23		105. 36. 27	104. 7. 47	102. 38. 48	101. 9. 29
24		93. 38. 4	92. 6. 48	90. 35. 12	89. 3. 15
25		81. 17. 54	79. 43. 39	78. 9. 0	76. 33. 58
26		68. 32. 54	66. 55. 27	65. 17. 36	63. 39. 21
27		55. 22. 14	53. 41. 37	52. 0. 38	50. 19. 17
28		41. 47. 16	40. 3. 53	38. 20. 11	

IX. JANUARY 1775. [9]

Distances of γ 's Center from Stars, and from $\odot$ east of her.

Days.	Stars Names.	12 Hours.	15 Hours.	18 Hours.	21 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
2	α Pegasi.	54. 46. 22	53. 3. 29	51. 21. 17	49. 39. 52
3		41. 27. 48	39. 53. 11	38. 20. 11	36. 48. 57
4	α Arietis.	68. 4. 5	66. 18. 16	64. 32. 59	62. 48. 12
5		54. 12. 42	52. 31. 25	50. 50. 48	49. 10. 53
6		41. 2. 40	39. 27. 36	37. 53. 30	36. 20. 26
7	Aldeba- ran.	58. 1. 4	56. 21. 24	54. 42. 6	53. 3. 12
8		44. 54. 14	43. 17. 31	41. 41. 9	40. 5. 6
9		32. 9. 31	30. 35. 19	29. 1. 22	27. 27. 41
10		19. 42. 54	18. 10. 39	16. 38. 36	15. 6. 48
11	Pollux.	52. 15. 28	50. 47. 2	49. 18. 52	47. 50. 57
12		40. 35. 25	39. 9. 11	37. 43. 16	36. 17. 41
13	Regulus.	63. 40. 26	62. 11. 18	60. 42. 13	59. 13. 11
14		51. 48. 39	50. 19. 50	48. 51. 2	47. 22. 15
15		39. 58. 29	38. 29. 43	37. 1. 0	35. 32. 14
16		28. 8. 13	26. 39. 21	25. 10. 28	23. 41. 33
17		16. 16. 37			
17	Spica π	70. 1. 44	68. 32. 57	67. 4. 8	65. 35. 15
18		58. 10. 7	56. 40. 55	55. 11. 40	53. 42. 21
19		46. 14. 45	44. 45. 0	43. 15. 11	41. 45. 18
20		34. 14. 54	32. 44. 40	31. 14. 24	29. 44. 7
21		22. 13. 26	20. 43. 47	19. 14. 30	17. 45. 44
22	Antares.	55. 42. 5	54. 8. 55	52. 35. 34	51. 2. 3
23		42. 11. 46	41. 37. 15	40. 2. 37	38. 27. 53
24		30. 34. 23			
21	The Sun.			120. 7. 49	118. 41. 50
22		111. 28. 7	110. 0. 37	108. 32. 51	107. 4. 48
23		99. 39. 52	98. 9. 55	96. 39. 38	95. 9. 1
24		87. 30. 56	85. 58. 15	84. 25. 11	82. 51. 44
25		74. 58. 32	73. 22. 44	71. 46. 31	70. 9. 55
26		62. 0. 42	60. 21. 40	58. 42. 15	57. 2. 26
27		48. 37. 34	46. 55. 30	45. 13. 5	43. 30. 21

[10] J A N U A R Y 1775. X.

Distances of γ 's Center from $\odot$, and from Stars west of her.

Days.	Stars Names.	Noon.	3 Hours.	6 Hours.	9 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
4	The Sun.			38. 40. 57	40. 23. 15
5		48. 49. 38	50. 29. 46	52. 9. 30	53. 48. 50
6		61. 59. 16	63. 36. 4	65. 12. 27	66. 48. 24
7		74. 41. 49	76. 15. 15	77. 48. 17	79. 20. 55
8		86. 58. 8	88. 28. 27	89. 58. 24	91. 27. 59
9		98. 50. 48	100. 18. 23	101. 45. 41	103. 12. 40
10		110. 23. 22	111. 48. 44	113. 13. 52	114. 38. 46
8	Fomalhaut.	46. 41. 5	48. 6. 22	49. 31. 53	50. 57. 37
9		58. 8. 20	59. 34. 38	61. 0. 56	62. 27. 13
10		69. 37. 54			
10	α Pegasi.	55. 1. 47	56. 26. 8	57. 50. 30	59. 14. 53
11		66. 16. 57	67. 41. 22	69. 5. 46	70. 30. 9
12		77. 31. 36			
12	α Arietis.	34. 4. 36	35. 25. 50	36. 47. 31	38. 9. 37
13		45. 5. 14	46. 29. 6	47. 53. 8	49. 17. 20
14		56. 20. 32			
14	Aldebaran.	22. 24. 50	23. 53. 47	25. 22. 43	26. 51. 36
15		34. 15. 43	35. 44. 30	37. 13. 17	38. 42. 4
16		46. 6. 4	47. 34. 54	49. 3. 45	50. 32. 39
17		57. 57. 30	59. 26. 35	60. 55. 41	62. 24. 52
18		69. 51. 39			
18	Pollux.	27. 38. 52	29. 1. 56	30. 25. 34	31. 49. 44
19		38. 57. 22	40. 24. 0	41. 50. 55	43. 18. 9
20		50. 38. 23			
20	Regulus.	13. 49. 10	15. 20. 5	16. 51. 11	18. 22. 29
21		26. 1. 45	27. 34. 10	29. 6. 48	30. 39. 38
22		38. 27. 2	40. 1. 14	41. 35. 40	43. 10. 22
23		51. 7. 45	52. 44. 6	54. 20. 46	55. 57. 45
24		64. 7. 36	65. 46. 33	67. 25. 51	69. 5. 28
25	Spica η .	24. 28. 13	26. 7. 14	27. 46. 58	29. 27. 21
26		37. 57. 58	39. 41. 43	41. 25. 58	43. 10. 41
27		52. 1. 10	53. 48. 36	55. 36. 26	57. 24. 41
28		66. 31. 41	68. 22. 9	70. 12. 57	72. 4. 4
29	Antares.	36. 19. 17	38. 8. 0	39. 57. 16	41. 47. 1

XI. JANUARY 1775. [11]

Distances of J's Center from ☉, and from Stars west of her.

Days.	Stars Names.	12 Hours.	15 Hours.	18 Hours.	21 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
4	The Sun.	42. 5. 15	43. 46. 54	45. 28. 10	47. 9. 5
5		55. 27. 46	57. 6. 17	58. 44. 22	60. 22. 2
6		68. 23. 56	69. 59. 2	71. 33. 42	73. 7. 57
7		80. 53. 9	82. 24. 58	83. 56. 24	85. 27. 28
8		92. 57. 14	94. 26. 7	95. 54. 40	97. 22. 53
9		104. 39. 22	106. 5. 46	107. 31. 54	108. 57. 46
10		116. 3. 26	117. 27. 52	118. 52. 6	120. 16. 7
8	Fomalhaut.	52. 23. 32	53. 49. 36	55. 15. 47	56. 42. 2
9		63. 53. 30	65. 19. 44	66. 45. 52	68. 11. 55
10	α Pegasi.	60. 39. 17	62. 3. 42	63. 28. 7	64. 52. 32
11		71. 54. 32	73. 18. 52	74. 43. 9	76. 7. 24
12	α Arietis.	39. 32. 7	40. 54. 58	42. 18. 7	43. 41. 32
13		50. 41. 44	52. 6. 16	53. 30. 55	54. 55. 40
14	Aldebaran.	28. 20. 28	29. 49. 18	31. 18. 7	32. 46. 55
15		40. 10. 50	41. 39. 37	43. 8. 26	44. 37. 14
16		52. 1. 33	53. 30. 29	54. 59. 27	56. 28. 28
17		63. 54. 5	65. 23. 23	66. 52. 43	68. 22. 9
18	Pollux.	33. 14. 24	34. 39. 33	36. 5. 5	37. 31. 1
19		44. 45. 42	46. 13. 31	47. 41. 34	49. 9. 52
20	Regulus.	19. 53. 57	21. 25. 37	22. 57. 28	24. 29. 31
21		32. 12. 41	33. 45. 56	35. 19. 24	36. 53. 6
22		44. 45. 19	46. 20. 30	47. 55. 58	49. 31. 42
23		57. 35. 3	59. 12. 42	60. 50. 40	62. 28. 58
24		70. 45. 26			
24	Spica ♏	18. 1. 2	19. 36. 19	21. 12. 40	22. 50. 0
25		31. 8. 22	32. 49. 57	34. 32. 6	36. 14. 46
26		44. 55. 53	46. 41. 32	48. 27. 38	50. 14. 11
27		59. 13. 21	61. 2. 23	62. 51. 47	64. 41. 33
28		73. 55. 31			
28	Antares.	29. 11. 31	30. 57. 13	32. 43. 48	34. 31. 11
29		43. 37. 11			

[10] J A N U A R Y 1775. X.

Distances of γ 's Center from $\odot$, and from Stars west of her.

Days.	Stars Names.	Noon.	3 Hours.	6 Hours.	9 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
4	The Sun.			38. 40. 57	40. 23. 15
5		48. 49. 38	50. 29. 46	52. 9. 30	53. 48. 50
6		61. 59. 16	63. 36. 4	65. 12. 27	66. 48. 24
7		74. 41. 49	76. 15. 15	77. 48. 17	79. 20. 55
8		86. 58. 8	88. 28. 27	89. 58. 24	91. 27. 59
9		98. 50. 48	100. 18. 23	101. 45. 41	103. 12. 40
10		110. 23. 22	111. 48. 44	113. 13. 52	114. 38. 46
8	Fomalhaut.	46. 41. 5	48. 6. 22	49. 31. 53	50. 57. 37
9		58. 8. 20	59. 34. 38	61. 0. 56	62. 27. 13
10		69. 37. 54			
10	α Pegasi.	55. 1. 47	56. 26. 8	57. 50. 30	59. 14. 53
11		66. 16. 57	67. 41. 22	69. 5. 46	70. 30. 9
12		77. 31. 36			
12	α Arietis.	34. 4. 36	35. 25. 50	36. 47. 31	38. 9. 37
13		45. 5. 14	46. 29. 6	47. 53. 8	49. 17. 20
14		56. 20. 32			
14	Aldebaran.	22. 24. 50	23. 53. 47	25. 22. 43	26. 51. 36
15		34. 15. 43	35. 44. 30	37. 13. 17	38. 42. 4
16		46. 6. 4	47. 34. 54	49. 3. 45	50. 32. 39
17		57. 57. 30	59. 26. 35	60. 55. 41	62. 24. 52
18		69. 51. 39			
18	Pollux.	27. 38. 52	29. 1. 56	30. 25. 34	31. 49. 44
19		38. 57. 22	40. 24. 0	41. 50. 55	43. 18. 9
20		50. 38. 23			
20	Regulus.	13. 49. 10	15. 20. 5	16. 51. 11	18. 22. 29
21		26. 1. 45	27. 34. 10	29. 6. 48	30. 39. 38
22		38. 27. 2	40. 1. 14	41. 35. 40	43. 10. 22
23		51. 7. 45	52. 44. 6	54. 20. 46	55. 57. 45
24		64. 7. 36	65. 46. 33	67. 25. 51	69. 5. 28
25	Spica η .	24. 28. 13	26. 7. 14	27. 46. 58	29. 27. 21
26		37. 57. 58	39. 41. 43	41. 25. 58	43. 10. 41
27		52. 1. 10	53. 48. 36	55. 36. 26	57. 24. 41
28		66. 31. 41	68. 22. 0	70. 12. 57	72. 4. 4
29	Antares.	36. 19. 17	38. 8. 0	39. 57. 16	41. 47. 1

XI. JANUARY 1775. [11]

Distances of J's Center from ☉, and from Stars west of her.

Days.	Stars Names.	12 Hours.	15 Hours.	18 Hours.	21 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
4	The Sun.	42. 5. 15	43. 46. 54	45. 28. 10	47. 9. 5
5		55. 27. 46	57. 6. 17	58. 44. 22	60. 22. 2
6		68. 23. 56	69. 59. 2	71. 33. 42	73. 7. 57
7		80. 53. 9	82. 24. 58	83. 56. 24	85. 27. 28
8		92. 57. 14	94. 26. 7	95. 54. 40	97. 22. 53
9		104. 39. 22	106. 5. 46	107. 31. 54	108. 57. 46
10		116. 3. 26	117. 27. 52	118. 52. 6	120. 16. 7
8	Fomalhaut.	52. 23. 32	53. 49. 36	55. 15. 47	56. 42. 2
9		63. 53. 30	65. 19. 44	66. 45. 52	68. 11. 55
10	α Pegasi.	60. 39. 17	62. 3. 42	63. 28. 7	64. 52. 32
11		71. 54. 32	73. 18. 52	74. 43. 9	76. 7. 24
12	α Arietis.	39. 32. 7	40. 54. 58	42. 18. 7	43. 41. 32
13		50. 41. 44	52. 6. 16	53. 30. 55	54. 55. 40
14	Aldebaran.	28. 20. 28	29. 49. 18	31. 18. 7	32. 46. 55
15		40. 10. 50	41. 39. 37	43. 8. 26	44. 37. 14
16		52. 1. 33	53. 30. 29	54. 59. 27	56. 28. 28
17		63. 54. 5	65. 23. 23	66. 52. 43	68. 22. 9
18	Pollux.	33. 14. 24	34. 39. 33	36. 5. 5	37. 31. 1
19		44. 45. 42	46. 13. 31	47. 41. 34	49. 9. 52
20	Regulus.	19. 53. 57	21. 25. 37	22. 57. 28	24. 29. 31
21		32. 12. 41	33. 45. 56	35. 19. 24	36. 53. 6
22		44. 45. 19	46. 20. 30	47. 55. 58	49. 31. 42
23		57. 35. 3	59. 12. 42	60. 50. 40	62. 28. 58
24		70. 45. 26			
24	Spica ♏	18. 1. 2	19. 36. 19	21. 12. 40	22. 50. 0
25		31. 8. 22	32. 49. 57	34. 32. 6	36. 14. 46
26		44. 55. 53	46. 41. 32	48. 27. 38	50. 14. 11
27		59. 13. 21	61. 2. 23	62. 51. 47	64. 41. 33
28		73. 55. 31			
28	Antares.	29. 11. 31	30. 57. 13	32. 43. 48	34. 31. 11
29		43. 37. 11			

[12]

JANUARY 1775.

XII.

Configurations of the SATELLITES of JUPITER at
7 o' th' Clock in the Evening.

1		3.	2.	⊙ ^{4.}	1.	
2			4.	1.	⊙ ^{2.}	
3		4.		⊙	1♂3 ^{2.}	
4	4.		2♂1	⊙		3.
5	4.		2.	⊙	1.	3.
6	4.			⊙		3♂1.0
7	1♂	4.	3.	⊙	2.	
8		3♂4	2.	⊙	1.	
9	2.0		3.	1♂4	⊙	
10				⊙	3.4.1	2.
11			1.	2.	⊙	3.4
12			2.	⊙	1.	3.
13				1.	⊙	3.
14	1♂		2.	⊙	2.	4.
15		3.	2.	⊙	1.	4.
16			3.	1.	2.	⊙
17				⊙	3.	1.
18	2♂4♂			⊙		3.
19		4.	2.	⊙	1.	2.
20		4.		1.	⊙	3.
21	4.		3.	⊙	1.	3.
22	4.		3.	⊙		1.0
23	4.		3.	1.	⊙	
24	3♂	4.		⊙	1.	2.
25	2♂		4.	1.	⊙	3.
26			2.	4.	⊙	1.
27				⊙	2.	3.
28			3.	⊙	1.	2.
29	1.0		3.	2.	⊙	
30			3.	2.	1.	⊙
31				⊙	2.	2.

I. FEBRUARY 1775. [13]

Days of the Month.	Days of the Week.	Sundays, Holidays, &c.	Phases of the Moon.	
			D. H. M.	
			First Quarter —	6. 21. 59
			Full Moon —	15. 2. 47
			Last Quarter —	22. 18. 4
			Other Phenomena.	
1	W.		D. 1. $\odot \lambda \approx 17^h. 59'$. 2. $\odot \phi \approx 3^h. 7'$. 6. $\odot \mu$ Ceti $3^h. 27'$. 8. $\odot \gamma \delta 1^h. 21'$. $\odot 2 \text{ ad } \delta \delta 3^h. 58'$. $\odot \alpha \delta 9^h. 13'$. 15. $\odot$ eclipsed invisible. $\odot \alpha \Omega 2^h. 31'$. $\odot \rho \Omega 15^h. 29'$. 16. $\odot \chi \Omega 7^h. 36'$. $\odot \sigma \Omega 15^h. 47'$. 17. $\odot \eta \Omega 23^h. 3'$. 18. $\odot$ enters $\Re$ at $6^h. 12'$. $\odot \gamma \Omega 9^h. 15'$. $\odot \eta$ Im. $9^h. 12'$. $\eta 8^h. \frac{1}{2}$. N. of δ 's cent. Em. $10^h. 6^h. \frac{1}{2}$. $\eta 7^h$ N. of δ 's cent. 21. $\odot \gamma \approx 20^h. 4'$. 22. $\odot \eta \approx 0^h. 3'$. $\odot \downarrow \approx 5^h. 22'$. $\delta \phi \phi$ diff. Lat. $40'$. $\odot \phi$ Serpentar. $19^h. 51'$. 26. $\odot \beta \nu 16^h. 17'$.	
2	Th.	Purification of V. Mary.		
3	F.	Blas. On mor. of Purif.		
4	Sa.	[3 ref.		
5	Su.	5th Sunday after Epiph.		
6	M.	[Agatha.		
7	Tu.			
8	W.			
9	Th.	In 8 days of Purif. 4 ref.		
10	F.			
11	Sa.			
12	Su.	Septuagesima-Sund. Term		
13	M.	[ends.		
14	Tu.	Valentine.		
15	W.			
16	Th.			
17	F.			
18	Sa.			
19	Su.	Sexagesima-Sunday.		
20	M.			
21	Tu.			
22	W.			
23	Th.			
24	F.	St. Matthias. Camb. Term		
25	Sa.	[divides at noon.		
26	Su.	Quinquagesima or Shrove		
27	M.	[Sunday.		
28	Tu.			

Days of the Month.	Days of the Week.	Sun's Longitude.	Sun's Right Asc. in Time.	Sun's Declin. South.	Equat. of Time. Add.	Diff.
		S. D. M. S.	H. M. S.	D. M. S.	M. S.	
1	W.	10. 12. 33. 36	21. 0. 7, 2	17. 3. 22	14. 4, 6	7, 3
2	Th.	10. 13. 34. 27	21. 4. 11, 2	16. 46. 4	14. 11, 9	6, 5
3	F.	10. 14. 35. 17	21. 8. 14, 2	16. 28. 29	14. 18, 4	5, 7
4	Sa.	10. 15. 36. 5	21. 12. 16, 5	16. 10. 38	14. 24, 1	4, 8
5	Su.	10. 16. 36. 52	21. 16. 17, 9	15. 52. 28	14. 28, 9	4, 1
6	M.	10. 17. 37. 37	21. 20. 18, 5	15. 34. 3	14. 33, 0	3, 1
7	Tu.	10. 18. 38. 20	21. 24. 18, 2	15. 15. 23	14. 36, 1	2, 4
8	W.	10. 19. 39. 2	21. 28. 17, 1	14. 56. 27	14. 38, 5	1, 5
9	Th.	10. 20. 39. 42	21. 32. 15, 2	14. 37. 16	14. 40, 0	0, 7
10	F.	10. 21. 40. 20	21. 36. 12, 5	14. 17. 50	14. 40, 7	0, 1
11	Sa.	10. 22. 40. 56	21. 40. 8, 9	13. 58. 11	14. 40, 6	0, 8
12	Su.	10. 23. 41. 31	21. 44. 4, 6	13. 38. 18	14. 39, 8	1, 7
13	M.	10. 24. 42. 4	21. 47. 59, 5	13. 18. 11	14. 38, 1	2, 4
14	Tu.	10. 25. 42. 35	21. 51. 53, 7	12. 57. 52	14. 35, 7	3, 1
15	W.	10. 26. 43. 4	21. 55. 47, 1	12. 37. 20	14. 32, 6	3, 9
16	Th.	10. 27. 43. 32	21. 59. 39, 7	12. 16. 37	14. 28, 7	4, 6
17	F.	10. 28. 43. 59	22. 3. 31, 7	11. 55. 41	14. 24, 1	5, 3
18	Sa.	10. 29. 44. 24	22. 7. 22, 9	11. 34. 34	14. 18, 8	5, 9
19	Su.	11. 0. 44. 47	22. 11. 13, 5	11. 13. 16	14. 12, 9	6, 6
20	M.	11. 1. 45. 9	22. 15. 3, 5	10. 51. 47	14. 6, 3	7, 2
21	Tu.	11. 2. 45. 30	22. 18. 52, 8	10. 30. 9	13. 59, 1	7, 9
22	W.	11. 3. 45. 49	22. 22. 41, 5	10. 8. 21	13. 51, 2	8, 5
23	Th.	11. 4. 46. 7	22. 26. 29, 5	9. 46. 23	13. 42, 7	9, 0
24	F.	11. 5. 46. 23	22. 30. 17, 9	9. 24. 17	13. 33, 7	9, 7
25	Sa.	11. 6. 46. 38	22. 34. 3, 9	9. 2. 2	13. 24, 0	10, 2
26	Su.	11. 7. 46. 52	22. 37. 50, 2	8. 39. 38	13. 13, 8	10, 7
27	M.	11. 8. 47. 4	22. 41. 36, 0	8. 17. 7	13. 3, 1	11, 3
28	Tu.	11. 9. 47. 14	22. 45. 21, 3	7. 54. 29	12. 51, 8	11, 8

III. FEBRUARY 1775. [15]

Days.	Semidia- meter of the Sun.	Time of D ^o passing the Meridian.	Hourly Motion of the Sun.	Logarithm of the Sun's Distance.	Place of the Moon's Node.
	M. S.	M. S.	M. S.		S. D. M.
1	16. 16, 5	1. 8, 1	2. 32, 2	9. 993855	5. 5. 5
7	16. 15, 5	1. 7, 4	2. 31, 8	9. 994297	5. 4. 46
13	16. 14, 3	1. 6, 7	2. 31, 5	9. 994796	5. 4. 27
19	16. 13, 1	1. 6, 1	2. 31, 0	9. 995372	5. 4. 8
25	16. 11, 7	1. 5, 6	2. 30, 5	9. 996013	5. 3. 49

Eclipses of the SATELLITES of JUPITER.

I. Satellite. Emerfions.		II. Satellite.		III. Satellite.	
Days	H. M. S.	Days	H. M. S.	Days	H. M. S.
1	2. 1. 41	1	11* 32. 1 I.	4	5* 34. 37 I.
2	20. 30. 26	1	13. 48. 19 E.	4	7* 9. 3 E.
4	14. 59. 10	5	0. 50 18 I.	11	9* 36. 9 I.
6	9* 28. 1	5	3. 6. 40 E.	11	11. 11. 7 E.
8	3. 56. 51	8	14. 8. 39 I.	18	13. 38. 17 I.
9	22. 25. 46	8	16. 25. 3 E.	18	15. 13. 51 E.
11	16. 54. 43	12	3. 27. 9 I.	25	17. 40. 59 I.
13	11. 23. 41	12	5* 43. 35 E.	25	19. 17. 3 E.
15	5* 52. 42	15	16. 45. 43 I.	IV. Satellite. Conj.	
17	0. 21. 47	15	19. 2. 11 E.		
18	18. 50. 50	19	6* 4. 24 I.	4	11* 7. 0 Sup.
20	13. 20. 1	19	8* 20. 54 E.	12	19. 13. 12 Inf.
22	7* 49. 8	22	19. 23. 12 I.	21	5. 23. 36 Sup.
24	2. 18. 23	22	21. 39. 44 E.		
25	20. 47. 36	26	8* 41. 51 I.		
27	15. 16. 50	26	10. 58. 25 E.		

[16] FEBRUARY 1775. IV.

Days.	Heliocentric Longitude.	Heliocentric Latitude.	Geocentric Longitude.	Geocentric Latitude.	Declination.	Pass. over Merid.
	S. D. M.	D. M.	S. D. M.	D. M.	D. M.	H. M.

MERCURY. Sup. δ 8^d. 16^h.

1	9. 24. 12	6. 30 S	10. 6. 57	2. 2 S	20. 31 S	23. 43
7	10. 14. 8	6. 59	10. 17. 19	2. 4	17. 38	0. 0
13	11. 7. 12	6. 31	10. 28. 9	1. 49	13. 50	0. 16
19	0. 4. 43	4. 36	11. 9. 20	1. 14	9. 13	0. 34
25	1. 7. 32	1. 1	11. 20. 23	0. 16	4. 4	0. 51

VENUS.

1	10. 26. 44	3. 14 S	10. 18. 34	1. 22 S	16. 35 S	0. 26
7	11. 6. 14	3. 21	10. 26. 5	1. 26	14. 11	0. 31
13	11. 15. 45	3. 23	11. 3. 36	1. 27	11. 33	0. 36
19	11. 25. 17	3. 20	11. 11. 6	1. 26	8. 44	0. 41
25	0. 4. 50	3. 11	11. 18. 35	1. 23	5. 47	0. 46

MARS. δ 23^d. 10^h.

1	4. 25. 23	1. 50 N	5. 12. 41	4. 9 N	10. 38 N	14. 0
7	4. 28. 0	1. 49	5. 11. 6	4. 16	11. 22	13. 30
13	5. 0. 37	1. 48	5. 9. 8	4. 21	12. 11	12. 59
19	5. 3. 15	1. 47	5. 6. 54	4. 23	13. 3	12. 27
25	5. 5. 52	1. 46	5. 4. 32	4. 21	13. 55	11. 55

JUPITER.

1	1. 19. 10	1. 0 S	1. 7. 50	1. 0 S	13. 11 N	5. 22
7	1. 19. 42	1. 0	1. 8. 30	0. 59	13. 26	5. 1
13	1. 20. 15	0. 59	1. 9. 16	0. 57	13. 42	4. 40
19	1. 20. 47	0. 59	1. 10. 7	0. 56	13. 59	4. 20
25	1. 21. 19	0. 58	1. 11. 31	0. 54	14. 18	4. 1

SATURN.

1	6. 3. 48	2. 23 N	6. 8. 43	2. 32 N	1. 8 S	15. 33
7	6. 4. 0	2. 23	6. 8. 32	2. 34	1. 2	15. 9
13	6. 4. 12	2. 23	6. 8. 17	2. 35	0. 55	14. 44
19	6. 4. 24	2. 24	6. 8. 0	2. 37	0. 46	14. 20
25	6. 4. 36	2. 24	6. 7. 39	2. 38	0. 37	13. 56

V. F E B R U A R Y 1775. [17]

Days of the Month.	Days of the Week.	Moon's Longitude at Noon.	Moon's Longitude at Midnight.	Moon's Latitude at Noon.	Moon's Latitude at Midnight.
		S. D. M. S.	S. D. M. S.	D. M. S.	D. M. S.
1	W.	10. 27. 21. 18	11. 4. 46. 59	0. 35. 32 N	0. 5. 22 S
2	Th.	11. 12. 7. 22	11. 19. 21. 50	0. 45. 47 S	1. 24. 56
3	F.	11. 26. 29. 45	0. 3. 31. 0	2. 2. 11	2. 36. 58
4	Sa.	0. 10. 25. 23	0. 17. 12. 50	3. 8. 55	3. 37. 38
5	Su.	0. 23. 53. 35	1. 0. 27. 58	4. 2. 55	4. 24. 34
6	M.	1. 6. 56. 19	1. 13. 19. 1	4. 42. 27	4. 56. 37
7	Tu.	1. 19. 36. 35	1. 25. 49. 34	5. 6. 58	5. 13. 34
8	W.	2. 1. 58. 19	2. 8. 3. 40	5. 16. 29	5. 15. 48
9	Th.	2. 14. 5. 56	2. 20. 5. 49	5. 11. 38	5. 4. 2
10	F.	2. 26. 3. 34	3. 2. 0. 1	4. 53. 14	4. 39. 17
11	Sa.	3. 7. 55. 17	3. 13. 50. 3	4. 22. 24	4. 2. 42
12	Su.	3. 19. 44. 36	3. 25. 39. 20	3. 40. 27	3. 15. 49
13	M.	4. 1. 34. 35	4. 7. 30. 39	2. 49. 3	2. 20. 19
14	Tu.	4. 13. 27. 45	4. 19. 26. 15	1. 50. 3	1. 18. 24
15	W.	4. 25. 26. 16	5. 1. 28. 5	0. 45. 45 S	0. 12. 25 S
16	Th.	5. 7. 31. 53	5. 13. 37. 54	0. 21. 14 N	0. 54. 52 N
17	F.	5. 19. 46. 21	5. 25. 57. 28	1. 28. 5	2. 0. 33
18	Sa.	6. 2. 11. 23	6. 8. 28. 22	2. 31. 44	3. 1. 25
19	Su.	6. 14. 48. 41	6. 21. 12. 30	3. 29. 8	3. 54. 29
20	M.	6. 27. 40. 6	7. 4. 11. 39	4. 17. 6	4. 36. 38
21	Tu.	7. 10. 47. 27	7. 17. 27. 32	4. 52. 45	5. 5. 5
22	W.	7. 24. 12. 16	8. 1. 1. 38	5. 13. 24	5. 17. 24
23	Th.	8. 7. 55. 43	8. 14. 54. 30	5. 16. 56	5. 11. 48
24	F.	8. 21. 58. 0	8. 29. 5. 59	5. 1. 56	4. 47. 18
25	Sa.	9. 6. 18. 12	9. 13. 34. 17	4. 28. 4	4. 4. 19
26	Su.	9. 20. 53. 40	9. 28. 15. 55	3. 36. 26	3. 4. 48
27	M.	10. 5. 40. 2	10. 13. 5. 27	2. 29. 55	1. 52. 26
28	Tu.	10. 20. 31. 7	10. 27. 56. 13	1. 12. 59	0. 32. 22

Days of the Month.	Days of the Week.	D's Age.	D's Passage over Merid.	D's Right Ascen. at Noon.	D's Right Asc. at Midn.	D's Declination at Noon.	D's Declination at Midn.
			H. M.	D. M.	D. M.	D. M.	D. M.
1	W.	3	1. 0	329. 21	336. 40	11. 51 S	9. 51 S
2	Th.	4	1. 55	343. 49	350. 47	7. 44	5. 31
3	F.	5	2. 48	357. 36	4. 16	3. 16 S	1. 0 S
4	Sa.	6	3. 38	10. 49	17. 15	1. 14 N	3. 25 N
5	Su.	7	4. 27	23. 37	29. 55	5. 31	7. 31
6	M.	8	5. 14	36. 9	42. 22	9. 24	11. 8
7	Tu.	9	6. 1	48. 34	54. 46	12. 44	14. 9
8	W.	10	6. 49	60. 58	67. 10	15. 24	16. 29
9	Th.	11	7. 36	73. 23	79. 37	17. 22	18. 3
10	F.	12	8. 23	85. 52	92. 6	18. 31	18. 48
11	Sa.	13	9. 11	98. 21	104. 35	18. 52	18. 43
12	Su.	14	9. 58	110. 48	117. 0	18. 23	17. 50
13	M.	15	10. 45	123. 10	129. 18	17. 5	16. 9
14	Tu.	16	11. 31	135. 23	141. 26	15. 2	13. 46
15	W.	17	12. 16	147. 27	153. 25	12. 20	10. 46
16	Th.	18	13. 1	159. 21	165. 17	9. 5	7. 17
17	F.	19	13. 46	171. 11	177. 5	5. 24	3. 27 N
18	Sa.	20	14. 31	183. 1	188. 58	1. 27 N	0. 35 S
19	Su.	21	15. 17	194. 59	201. 4	2. 38 S	4. 39
20	M.	22	16. 5	207. 14	213. 30	6. 39	8. 35
21	Tu.	23	16. 55	219. 55	226. 27	10. 26	12. 11
22	W.	24	17. 48	233. 9	240. 1	13. 47	15. 12
23	Th.	25	18. 44	247. 2	254. 14	16. 26	17. 27
24	F.	26	19. 42	261. 34	269. 3	18. 12	18. 40
25	Sa.	27	20. 42	276. 39	284. 19	18. 51	18. 43
26	Su.	28	21. 42	292. 1	299. 44	18. 16	17. 31
27	M.	29	22. 41	307. 24	315. 1	16. 27	15. 7
28	Tu.	30	23. 39	322. 32	329. 56	13. 31	11. 42

VII. FEBRUARY 1775. [19]

Days of the Month.	Days of the Week.	Semidr. Δ at Noon.	Semidr. Δ at Midnight.	Hor. Par. Δ at Noon.	Hor. Par. Δ at Midnight.	Proport. Lo- gar. at Noon.	Proport. Lo- gar. at Midn.
		M. S.	M. S.	M. S.	M. S.		
1	W.	16. 36	16. 31	60. 54	60. 36	4707	4728
2	Th.	16. 25	16. 18	60. 15	59. 51	4753	4782
3	F.	16. 11	16. 4	59. 24	58. 56	4815	4849
4	Sa.	15. 56	15. 48	58. 27	57. 58	4885	4921
5	Su.	15. 40	15. 32	57. 30	57. 2	4956	4991
6	M.	15. 25	15. 19	56. 36	56. 12	5025	5055
7	Tu.	15. 13	15. 7	55. 49	55. 29	5085	5111
8	W.	15. 2	14. 58	55. 11	54. 56	5134	5154
9	Th.	14. 54	14. 51	54. 42	54. 31	5173	5187
10	F.	14. 49	14. 47	54. 22	54. 16	5199	5207
11	Sa.	14. 46	14. 45	54. 11	54. 9	5214	5217
12	Su.	14. 45	14. 46	54. 9	54. 10	5217	5215
13	M.	14. 46	14. 47	54. 12	54. 17	5213	5206
14	Tu.	14. 49	14. 51	54. 22	54. 29	5199	5196
15	W.	14. 53	14. 55	54. 37	54. 46	5179	5167
16	Th.	14. 58	15. 1	54. 56	55. 7	5154	5140
17	F.	15. 4	15. 8	55. 19	55. 32	5124	5107
18	Sa.	15. 12	15. 16	55. 45	56. 0	5090	5071
19	Su.	15. 20	15. 24	56. 15	56. 32	5051	5029
20	M.	15. 29	15. 34	56. 49	57. 7	5008	4985
21	Tu.	15. 39	15. 44	57. 26	57. 45	4961	4937
22	W.	15. 50	15. 55	58. 5	58. 25	4912	4887
23	Th.	16. 1	16. 6	58. 46	59. 5	4861	4838
24	F.	16. 11	16. 16	59. 25	59. 43	4813	4792
25	Sa.	16. 21	16. 25	60. 0	60. 15	4771	4753
26	Su.	16. 29	16. 31	60. 28	60. 37	4737	4727
27	M.	16. 33	16. 34	60. 44	60. 47	4718	4715
28	Tu.	16. 34	16. 32	60. 46	60. 41	4716	4722

[20] FEBRUARY 1775. VIII.

Distances of J's Center from Stars, and from ☉ east of her.

Days.	Stars Names.	Noon.	3 Hours.	6 Hours.	9 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1	♈ Arietis.	67. 24. 50	65. 36. 47	63. 49. 8	62. 1. 55
2		53. 13. 25	51. 29. 26	49. 46. 6	48. 3. 29
3		39. 42. 34			
3	♌ Aldebaran.	70. 3. 7	68. 16. 51	66. 31. 3	64. 45. 41
4		56. 5. 42	54. 23. 5	52. 40. 55	50. 59. 13
5		42. 37. 19	40. 58. 13	39. 19. 32	37. 41. 16
6		29. 35. 53	27. 59. 57	26. 24. 23	24. 49. 10
7	♊ Pollux.	16. 58. 4			
7		61. 32. 4	60. 0. 43	58. 29. 44	56. 59. 6
8		49. 31. 5	48. 2. 27	46. 34. 9	45. 6. 9
9	♋ Regulus.	37. 51. 35			
9		72. 43. 38	71. 13. 47	69. 44. 6	68. 14. 34
10		60. 48. 42	59. 19. 46	57. 50. 53	56. 22. 4
11		48. 58. 51	47. 30. 17	46. 1. 43	44. 33. 10
12		37. 10. 20	35. 41. 42	34. 13. 2	32. 44. 20
13	♎ Spica ♏	25. 20. 7	23. 51. 6	22. 22. 2	20. 52. 54
14		13. 26. 24			
14	♏ Spica ♏	67. 12. 4	65. 42. 50	64. 13. 31	62. 44. 8
15		55. 15. 52	53. 45. 56	52. 15. 55	50. 45. 49
16		43. 14. 0	41. 43. 23	40. 12. 42	38. 41. 58
17		31. 7. 37	29. 36. 42	28. 5. 49	26. 35. 1
18	♍ Antares.	19. 3. 59			
18		64. 45. 58	63. 13. 32	61. 40. 58	60. 8. 16
19		52. 23. 0	50. 49. 38	49. 16. 11	47. 42. 39
20	♐ ♐ Aquilæ.	39. 54. 9	38. 20. 24	36. 46. 43	35. 13. 7
21		76. 59. 8	75. 30. 39	74. 2. 7	72. 33. 32
22		65. 10. 14	63. 41. 42	62. 13. 17	60. 45. 2
23	☉ The Sun.	53. 27. 26			
20				120. 58. 38	119. 28. 19
21		111. 53. 2	110. 21. 14	108. 49. 11	107. 16. 52
22		99. 31. 9	97. 57. 9	96. 22. 54	94. 48. 20
23		86. 51. 13	85. 14. 54	83. 38. 17	82. 1. 22
24		73. 52. 13	72. 13. 30	70. 34. 29	68. 55. 11
25		60. 34. 21	58. 53. 21	57. 12. 6	55. 30. 36
26		46. 59. 34	45. 16. 42	43. 33. 39	41. 50. 24

IX. FEBRUARY 1775. [21]

Distances of J's Center from Stars, and from ☉ east of her.

Days.	Stars Names.	12 Hours.	15 Hours.	18 Hours.	21 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1	α Arietis.	60. 15. 10	58. 28. 54	56. 43. 10	54. 58. 1
2		46. 21. 36	44. 40. 31	43. 0. 18	41. 20. 59
3	Aldebaran.	63. 0. 47	61. 16. 20	59. 32. 20	57. 48. 47
4		49. 17. 37	47. 37. 8	45. 56. 46	44. 16. 50
5		36. 3. 24	34. 25. 57	32. 48. 52	31. 12. 11
6		23. 14. 18	21. 39. 46	20. 5. 33	18. 31. 39
7	Pollux.	55. 28. 49	53. 58. 53	52. 29. 17	51. 0. 1
8		43. 38. 30	42. 11. 13	40. 44. 18	39. 17. 45
9	Regulus.	66. 45. 11	65. 15. 55	63. 46. 45	62. 17. 41
10		54. 53. 19	53. 24. 39	51. 56. 1	50. 27. 25
11		43. 4. 37	41. 36. 4	40. 7. 30	38. 38. 56
12		31. 15. 36	29. 46. 48	28. 17. 58	26. 49. 4
13		19. 23. 43	17. 54. 29	16. 25. 10	14. 55. 49
14	Spica ♀	61. 14. 39	59. 45. 5	58. 15. 26	56. 45. 42
15		49. 15. 38	47. 45. 21	46. 14. 59	44. 44. 32
16		37. 11. 11	35. 40. 20	34. 9. 27	32. 38. 32
17		25. 4. 20	23. 33. 49	22. 3. 32	20. 33. 33
18	Antares.	58. 35. 26	57. 2. 29	55. 29. 26	53. 56. 16
19		46. 9. 3	44. 35. 23	43. 1. 40	41. 27. 55
20		33. 39. 37			
20	α Aquilæ.	82. 52. 2	81. 23. 59	79. 55. 49	78. 27. 32
21		71. 4. 53	69. 36. 12	68. 7. 30	66. 38. 50
22		59. 16. 58	57. 49. 8	56. 21. 35	54. 54. 20
20	The Sun.	117. 57. 45	116. 26. 56	114. 55. 53	113. 24. 35
21		105. 44. 18	104. 11. 26	102. 38. 17	101. 4. 51
22		93. 13. 30	91. 38. 22	90. 2. 57	88. 27. 14
23		80. 24. 9	78. 46. 37	77. 8. 47	75. 30. 39
24		67. 15. 35	65. 35. 42	63. 55. 31	62. 15. 4
25		53. 48. 51	52. 6. 52	50. 24. 39	48. 42. 13
26		40. 6. 58			

Distances of γ 's Center from $\odot$, and from Stars west of her.

Days.	Stars Names.	Noon.	3 Hours.	6 Hours.	9 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
3	The Sun.	41. 56. 53	43. 35. 27	45. 13. 34	46. 51. 15
4		54. 52. 57	56. 27. 55	58. 2. 26	59. 36. 31
5		67. 20. 18	68. 51. 47	70. 22. 51	71. 53. 31
6		79. 20. 54	80. 49. 14	82. 17. 12	83. 44. 50
7		90. 58. 1	92. 23. 44	93. 49. 11	95. 14. 20
8		102. 16. 7	103. 39. 48	105. 3. 16	106. 26. 32
9		113. 20. 7	114. 42. 22	116. 4. 30	117. 26. 30
7	α Pegasi.	63. 13. 25	64. 39. 6	66. 4. 42	67. 30. 13
8		74. 36. 7	76. 0. 58	77. 25. 43	78. 50. 21
9	α Arietis.	42. 14. 31	43. 38. 0	45. 1. 41	46. 25. 33
10		53. 26. 45			
10	Aldebaran.	19. 20. 30	20. 49. 29	22. 18. 23	23. 47. 13
11		31. 10. 31	32. 39. 7	34. 7. 42	35. 36. 17
12		42. 59. 19	44. 27. 59	45. 56. 42	47. 25. 27
13		54. 50. 0	56. 19. 6	57. 48. 17	59. 17. 32
14		66. 45. 0			
14	Pollux.	24. 48. 9	26. 9. 49	27. 32. 21	28. 55. 40
15		36. 1. 8	37. 27. 38	38. 54. 32	40. 21. 47
16		47. 42. 43			
16	Regulus.	10. 49. 17	12. 20. 35	13. 52. 4	15. 23. 45
17		23. 4. 54	24. 37. 39	26. 10. 34	27. 43. 39
18		35. 31. 36	37. 5. 42	38. 39. 59	40. 14. 28
19		48. 9. 42	49. 45. 19	51. 21. 9	52. 57. 11
20		61. 0. 37	62. 37. 58	64. 15. 32	65. 53. 21
21	Spica μ	21. 13. 24	22. 48. 53	24. 25. 7	26. 1. 58
22		34. 14. 23	35. 54. 14	37. 34. 29	39. 15. 8
23		47. 43. 59	49. 26. 49	51. 10. 0	52. 53. 32
24		61. 36. 13	63. 21. 44	65. 7. 33	66. 53. 41
25	Antares.	30. 59. 13	32. 41. 52	34. 25. 19	36. 9. 27
26		44. 58. 33	46. 45. 46	48. 33. 21	50. 21. 16
27		59. 24. 51	61. 14. 14	63. 3. 46	64. 53. 27
28		74. 3. 4			

XI. FEBRUARY 1775. [23]

Distances of J's Center from ☉, and from Stars west of her.

Days.	Stars Names.	12 Hours.	15 Hours.	18 Hours.	21 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
2	The Sun.			38. 38. 30	40. 17. 54
3		48. 28. 30	50. 5. 17	51. 41. 37	53. 17. 31
4		61. 10. 9	62. 43. 20	64. 16. 5	65. 48. 24
5		73. 23. 46	74. 53. 37	76. 23. 6	77. 52. 11
6		85. 12. 7	86. 39. 4	88. 5. 41	89. 32. 0
7		96. 39. 13	98. 3. 48	99. 28. 9	100. 52. 15
8		107. 49. 37	109. 12. 29	110. 35. 12	111. 57. 44
9		118. 48. 22	120. 10. 7		
6	α Pegasi.	57. 30. 8	58. 56. 1	60. 21. 52	61. 47. 40
7		68. 55. 38	70. 20. 55	71. 46. 5	73. 11. 9
8		80. 14. 53			
8	α Arietis.	36. 43. 14	38. 5. 38	39. 28. 18	40. 51. 16
9		47. 49. 35	49. 13. 45	50. 38. 0	52. 2. 21
10	Aldebaran.	25. 15. 58	26. 44. 40	28. 13. 19	29. 41. 56
11		37. 4. 52	38. 33. 27	40. 2. 3	41. 30. 40
12		48. 54. 15	50. 23. 6	51. 52. 0	53. 20. 58
13		60. 46. 52	62. 16. 16	63. 45. 46	65. 15. 20
14	Pollux.	30. 19. 40	31. 44. 16	33. 9. 25	34. 35. 3
15		41. 49. 22	43. 17. 17	44. 45. 30	46. 13. 59
16	Regulus.	16. 55. 37	18. 27. 40	19. 59. 54	21. 32. 19
17		29. 16. 54	30. 50. 19	32. 23. 54	33. 57. 40
18		41. 49. 7	43. 23. 58	44. 59. 1	46. 34. 16
19		54. 33. 26	56. 9. 54	57. 46. 35	59. 23. 29
20		67. 31. 23			
20	Spica ♏	15. 1. 33	16. 32. 37	18. 5. 4	19. 38. 43
21		27. 39. 26	29. 17. 27	30. 55. 59	32. 34. 58
22		40. 56. 10	42. 37. 35	44. 19. 21	46. 1. 29
23		54. 37. 24	56. 21. 36	58. 6. 9	59. 51. 1
24		68. 40. 7			
24	Antares.	24. 18. 42	25. 57. 3	27. 36. 40	29. 17. 26
25		37. 54. 14	39. 39. 34	41. 25. 26	43. 11. 46
26		52. 9. 30	53. 57. 59	55. 46. 42	57. 35. 40
27		66. 43. 15	68. 33. 8	70. 23. 5	72. 13. 4

[24] FEBRUARY 1775. XII.

Configurations of the SATELLITES of JUPITER at
7 o' th' Clock in the Evening.

1		1.	⊙	2.		3.		4.
2		2.	⊙		1.		4 0 3	
3			⊙	2.	4.	3.		
4	3 ●		4.	⊙	1.	2.		
5		4 0 3	2.	⊙	1.			
6	1 ●	4.		3.	2.	⊙		
7	4.			3.	⊙	1.	2.	
8			1.	⊙	2.		3.	
9	4.		2.	⊙		1.		3.
10	2.0		4.		1.	⊙		3.
11	3 ●			4.	⊙	1.	2.	
12	4.0		3.		2.	⊙		
13			3.	2.	⊙	1.		4.
14	1.0			3.	⊙		2.	
15				1.	⊙	2.		4.
16			2.		⊙		1.	3.
17			1.	2.	⊙		5.	4.
18					⊙	3.	1.	2.
19	2 ●		3.		⊙			4.
20			3.	2.	⊙	1.	4.	
21	1.0			4.	⊙		2.	
22	1 ●		4.		⊙		2.	
23		4.		2.	⊙		1.	3.
24	4.			1.	⊙			3.
25		4.			⊙	3.		2.
26	2 ●			3.	⊙			
27			3.	2.	⊙		1.	
28					⊙			2.

I.		M A R C H 1775.		[25]
Days of the Month.	Days of the Week.	Sundays, Holidays, &c.	Phases of the Moon.	
			D. H. M.	
			New Moon —	1. 9. 35
			First Quarter —	8. 16. 13
			Full Moon —	16. 19. 54
			Last Quarter —	24. 2. 7
			New Moon —	30. 20. 44
1	W.	<i>Ash-Wednesday.</i> David. Chad.	D. Other Phenomena.	
2	Th.		1. ☉ eclipsed invisible.	
3	F.		2. ☾ ♀ 8 ^h . 50'.	
4	Sa.		5. ☾ μ Ceti 12 ^h . 29'.	
5	Su.	<i>1st Sunday in Lent.</i>	6. ♄ γ ♄ diff. Lat. 9'.	
6	M.	Perpetua.	7. ☾ γ ♂ Im. 10 ^h . 9 ^h	
7	Tu.		* 4 ¹ / ₂ ' N. of ♀'s cent.	
8	W.		Em. 11 ^h . 4 ¹ / ₂ ' * 6 ¹ / ₂ '	
9	Th.		N. of ♀'s cent.	
10	F.	<i>2^d Su. in Lent.</i> Greg. M.	☾ 2 ad ♄ ♂ 11 ^h . 51'.	
11	Sa.		☾ α ♂ 17 ^h . 2'.	
12	Su.		14. ♀ Stationary.	
13	M.		☾ α ♀ 9 ^h . 43'.	
14	Tu.	Edward, K. of W. Sax.	☾ ♀ ♀ 22 ^h . 40'.	
15	W.		15. ☾ χ ♀ 14 ^h . 37'.	
16	Th.		☾ σ ♀ 22 ^h . 44'.	
17	F.		17. ☾ η ♄ 5 ^h . 37'.	
18	Sa.	<i>3^d Sunday in Lent.</i>	☾ ♄ 14 ^h . 7'.	
19	Su.	Benedict.	☾ γ ♄ 15 ^h . 42'.	
20	M.		19. ♀ ♄ diff. Lat. 37'.	
21	Tu.		20. ☉ enters ♄ at 6 ^h . 43'.	
22	W.		21. ☾ γ ♄ 1 ^h . 38'.	
23	Th.	<i>Annunciation of V. M.</i>	☾ ♄ ♄ 10 ^h . 55'.	
24	F.		22. ☾ ♄ Serpentar. 1 ^h . 27'.	
25	Sa.		28. ☾ λ ♄ 14 ^h . 39'.	
26	Su.		☾ ♄ ♄ 23 ^h . 57'.	
27	M.	<i>4th Sunday in Lent. Mid-</i>		
28	Tu.	<i>[Lent Sunday.]</i>		
29	W.			
30	Th.			
31	F.			

[26]

MARCH 1775.

II.

Days of the Month.	Days of the Week.	Sun's Longitude.			Sun's Right Asc. in Time.			Sun's Declin. South.			Equat. of Time Add.		Diff.
		S.	D.	M. S.	H.	M.	S.	D.	M.	S.	M.	S.	
1	W.	11.	10.	47. 23	22.	49.	6, 0	7.	31.	44	12. 40	0	12, 3
2	Th.	11.	11.	47. 30	22.	52.	50, 2	7.	8.	52	12. 27, 7		12, 8
3	F.	11.	12.	47. 35	22.	56.	34, 0	6.	45.	55	12. 14, 9		13, 2
4	Sa.	11.	13.	47. 38	23.	0.	17, 2	6.	22.	51	12. 1, 7		13, 7
5	Su.	11.	14.	47. 38	23.	4.	0, 0	5.	59.	43	11. 48, 0		14, 2
6	M.	11.	15.	47. 37	23.	7.	42, 3	5.	36.	30	11. 33, 8		14, 7
7	Tu.	11.	16.	47. 33	23.	11.	24, 2	5.	13.	13	11. 19, 1		15, 0
8	W.	11.	17.	47. 27	23.	15.	5, 7	4.	49.	51	11. 4, 1		15, 4
9	Th.	11.	18.	47. 19	23.	18.	46, 8	4.	26.	26	10. 48, 7		15, 8
10	F.	11.	19.	47. 8	23.	22.	27, 5	4.	2.	58	10. 32, 9		16, 2
11	Sa.	11.	20.	46. 55	23.	26.	7, 9	3.	39.	27	10. 16, 7		16, 5
12	Su.	11.	21.	46. 40	23.	29.	47, 9	3.	15.	53	10. 0, 2		16, 7
13	M.	11.	22.	46. 23	23.	33.	27, 6	2.	52.	17	9. 43, 5		17, 1
14	Tu.	11.	23.	46. 3	23.	37.	7, 1	2.	28.	40	9. 26, 4		17, 4
15	W.	11.	24.	45. 41	23.	40.	46, 2	2.	5.	1	9. 9, 0		17, 6
16	Th.	11.	25.	45. 17	23.	44.	25, 1	1.	41.	21	8. 51, 4		17, 8
17	F.	11.	26.	44. 51	23.	48.	3, 8	1.	17.	40	8. 33, 6		18, 0
18	Sa.	11.	27.	44. 23	23.	51.	42, 4	0.	54.	0	8. 15, 6		18, 1
19	Su.	11.	28.	43. 53	23.	55.	20, 7	0.	30.	19	7. 57, 5		18, 3
20	M.	11.	29.	43. 21	23.	58.	58, 9	0.	6.	38	7. 39, 2		18, 4
21	Tu.	0.	0.	42. 48	0.	2.	37, 0	North.					
22	W.	0.	1.	42. 12	0.	6.	15, 0	0.	17.	3	7. 20, 8		18, 5
23	Th.	0.	2.	41. 35	0.	9.	53, 0	0.	40.	42	7. 2, 3		18, 6
24	F.	0.	3.	40. 57	0.	13.	30, 9	1.	4.	20	6. 43, 7		18, 6
25	Sa.	0.	4.	40. 16	0.	17.	8, 7	1.	27.	56	6. 25, 1		18, 6
26	Su.	0.	5.	39. 34	0.	20.	46, 6	1.	51.	30	6. 6, 5		18, 6
27	M.	0.	6.	38. 50	0.	24.	24, 4	2.	15.	2	5. 47, 9		18, 7
28	Tu.	0.	7.	38. 4	0.	28.	2, 3	2.	38.	31	5. 29, 2		18, 6
29	W.	0.	8.	37. 17	0.	31.	40, 3	3.	1.	57	5. 10, 6		18, 6
30	Th.	0.	9.	36. 28	0.	35.	18, 3	3.	25.	20	4. 52, 0		18, 5
31	F.	0.	10.	35. 37	0.	38.	56, 4	3.	48.	39	4. 33, 5		18, 4
								4.	11.	54	4. 15, 1		18, 3

III. MARCH 1775. [27]

Days of the Month.	Semidia- meter of the Sun.	Time of D ^o passing the Meridian.	Hourly Motion of the Sun.	Logarithm of the Sun's Distance.	Place of the Moon's Node.
	M. S.	M. S.	M. S.		S. D. M.
1	16. 10. 7	1. 5. 3	2. 30. 2	9. 996456	5. 3. 36
7	16. 9. 2	1. 4. 9	2. 29. 7	9. 997133	5. 3. 17
13	16. 7. 5	1. 4. 6	2. 29. 2	9. 997827	5. 2. 58
19	16. 5. 9	1. 4. 4	2. 28. 8	9. 998563	5. 2. 39
25	16. 4. 3	1. 4. 3	2. 28. 3	9. 999330	5. 2. 20

Eclipses of the SATELLITES of JUPITER.

I. Satellite. Emerfions.		II. Satellite. Emerfions.		III. Satellite.	
Days	H. M. S.	Days	H. M. S.	Days	H. M. S.
1	9 [*] 46. 3	2	0. 17. 19	4	21. 44. 4 I.
3	4. 15. 22	5	13. 36. 17	4	23. 20. 44 E.
4	22. 44. 41	9	2. 55. 20	12	1. 47. 31 I.
6	17. 14. 5	12	16. 14. 24	12	3. 24. 45 E.
8	11. 43. 26	16	5. 33. 29	19	5. 51. 6 I.
10	6. 12. 50	19	18. 52. 35	19	7 [*] 29. 7 E.
12	0. 42. 14	23	8 [*] 11. 38	26	9. 54. 42 I.
13	19. 11. 39	26	21. 30. 40	26	11. 33. 28 E.
15	13. 41. 6	30	10. 49. 40	IV. Satellite. Conj.	
17	8 [*] 10. 32				
19	2. 40. 0				
20	21. 9. 26			1	13. 28. 33 Inf.
22	15. 38. 54			9	23. 42. 35 Sup.
24	10. 8. 20			18	7 [*] 45. 40 Inf.
26	4. 37. 47			26	18. 2. 24 Sup.
27	23. 7. 13				
29	17. 36. 42				
31	12. 6. 5				

[28] MARCH 1775. IV.

Days.	Heliocen- tric Lon- gitude.	Heliocen- tric Lat- tude.	Geocen- tric Lon- gitude.	Geocen- tric La- titude.	Declina- tion.	Passage over Merid.
	S. D. M.	D. M.	S. D. M.	D. M.	D. M.	H. M.

MERCURY. Gr. Elong. 6^d. inf. ♄ 23^d. 22^h.

1	2. 1. 57	1. 57 N	11. 27. 8	0. 33 N	0. 38 S	0. 59
7	3. 9. 37	5. 39	0. 5. 0	1. 55	3. 45 N	1. 4
13	4. 14. 17	6. 59	0. 8. 36	3. 4	6. 14	0. 53
19	5. 13. 26	6. 12	0. 7. 20	3. 31	6. 9	0. 26
25	6. 7. 32	4. 21	0. 2. 44	2. 56	3. 47	23. 41

VENUS.

1	0. 21. 12	3. 2 S	11. 23. 34	1. 20 S	3. 47 S	0. 49
7	0. 20. 46	2. 44	0. 1. 2	1. 12	0. 42 S	0. 54
13	1. 0. 21	2. 22	0. 8. 29	1. 3	2. 24 N	0. 59
19	1. 9. 57	1. 56	0. 15. 55	0. 52	5. 28	1. 4
25	1. 19. 35	1. 26	0. 23. 20	0. 39	8. 28	1. 10

MARS.

1	5. 7. 37	1. 45 N	5. 2. 57	4. 17 N	14. 25 N	11. 34
7	5. 10. 14	1. 43	5. 0. 43	4. 9	15. 6	11. 4
13	5. 12. 52	1. 41	4. 28. 47	3. 58	15. 37	10. 34
19	5. 15. 30	1. 39	4. 27. 13	3. 45	15. 58	10. 6
25	5. 18. 9	1. 36	4. 26. 5	3. 31	16. 8	9. 39

JUPITER.

1	1. 21. 41	0. 58 S	1. 11. 43	0. 53 S	14. 31 N	3. 49
7	1. 22. 13	0. 57	1. 12. 45	0. 52	14. 51	3. 31
13	1. 22. 45	0. 57	1. 13. 51	0. 51	15. 12	3. 13
19	1. 23. 18	0. 56	1. 15. 1	0. 50	15. 34	2. 55
25	1. 23. 50	0. 56	1. 16. 14	0. 49	15. 56	2. 38

SATURN. ♄ 25^d. 22^h.

1	6. 4. 44	2. 24 N	6. 7. 24	2. 39 N	0. 30 S	13. 40
7	6. 4. 56	2. 24	6. 6. 59	2. 40	0. 20	13. 16
13	6. 5. 8	2. 24	6. 6. 33	2. 40	0. 9 S	12. 53
19	6. 5. 20	2. 24	6. 6. 6	2. 41	0. 2 N	12. 29
25	6. 5. 32	2. 24	6. 5. 38	2. 41	0. 13	12. 6

V.		M A R C H 1775.				[29]
Days of the Month.	Days of the Week.	Moon's Longitude at Noon.	Moon's Longitude at Midnight.	Moon's Latitude at Noon.	Moon's Latitude at Midn.	
		S. D. M. S.	S. D. M. S.	D. M. S.	D. M. S.	
1	W.	11. 5. 19. 31	11. 12. 40. 17	0. 8. 39 S	0. 49. 16 S	
2	Th.	11. 19. 57. 34	11. 27. 10. 39	1. 28. 44	2. 6. 24	
3	F.	0. 4. 18. 43	0. 11. 21. 15	2. 41. 37	3. 13. 55	
4	Sa.	0. 18. 17. 53	0. 25. 8. 20	3. 42. 51	4. 8. 9	
5	Su.	1. 1. 52. 29	1. 8. 30. 22	4. 29. 34	4. 47. 2	
6	M.	1. 15. 2. 7	1. 21. 27. 59	5. 0. 28	5. 9. 51	
7	Tu.	1. 27. 48. 22	2. 4. 3. 36	5. 15. 21	5. 15. 59	
8	W.	2. 10. 14. 14	2. 16. 20. 47	5. 14. 54	5. 9. 17	
9	Th.	2. 22. 23. 48	2. 28. 23. 57	5. 0. 15	4. 47. 59	
10	F.	3. 4. 21. 46	3. 10. 17. 48	4. 32. 42	4. 14. 32	
11	Sa.	3. 16. 12. 47	3. 22. 7. 13	3. 53. 44	3. 30. 29	
12	Su.	3. 28. 1. 36	4. 3. 56. 36	3. 4. 59	2. 37. 28	
13	M.	4. 9. 52. 37	4. 15. 50. 52	2. 8. 13	1. 37. 25	
14	Tu.	4. 21. 49. 33	4. 27. 51. 14	1. 5. 26 S	0. 32. 30 S	
15	W.	5. 3. 55. 33	5. 10. 2. 43	0. 0. 57 N	0. 34. 42 N	
16	Th.	5. 16. 12. 59	5. 22. 26. 30	1. 8. 18	1. 41. 18	
17	F.	5. 28. 43. 27	6. 5. 3. 53	2. 13. 21	2. 44. 4	
18	Sa.	6. 11. 27. 52	6. 17. 55. 24	3. 12. 58	3. 39. 38	
19	Su.	6. 24. 26. 26	7. 1. 0. 57	4. 3. 41	4. 24. 44	
20	M.	7. 7. 38. 52	7. 14. 20. 8	4. 42. 24	4. 56. 22	
21	Tu.	7. 21. 4. 32	7. 27. 52. 55	5. 6. 21	5. 12. 7	
22	W.	8. 4. 42. 30	8. 11. 35. 50	5. 13. 31	5. 10. 26	
23	Th.	8. 18. 31. 54	8. 25. 30. 19	5. 2. 49	4. 50. 41	
24	F.	9. 2. 31. 16	9. 9. 34. 31	4. 34. 8	4. 13. 21	
25	Sa.	9. 16. 39. 46	9. 23. 46. 53	3. 48. 38	3. 20. 15	
26	Su.	10. 0. 55. 37	10. 8. 5. 43	2. 48. 41	2. 14. 20	
27	M.	10. 15. 16. 47	10. 22. 28. 28	1. 37. 48	0. 59. 42 N	
28	Tu.	10. 29. 40. 13	11. 6. 51. 37	0. 20. 39 N	0. 18. 39 S	
29	W.	11. 14. 2. 0	11. 21. 10. 56	0. 57. 34 S	1. 35. 20	
30	Th.	11. 28. 17. 37	0. 5. 21. 31	2. 11. 25	2. 45. 14	
31	F.	0. 12. 21. 57	0. 19. 18. 34	3. 16. 12	3. 43. 56	

[30]		M A R C H 1775.					VI.
Days of the Month.	Days of the Week.	D's Age.	D's Passage over Merid.	D's Right Ascen. at Noon.	D's Right Asc. at Midn.	D's Declinat. at Noon.	D's Declin. at Midn.
			H. M.	D. M.	D. M.	D. M.	D. M.
1	W.	1	♂	337. 12	344. 21	9. 42 S	7. 34 S
2	Th.	2	0. 34	351. 22	358. 15	5. 20	3. 3 S
3	F.	3	1. 26	5. 1	11. 42	0. 45 S	1. 31 N
4	Sa.	4	2. 17	18. 18	24. 49	3. 45 N	5. 53
5	Su.	5	3. 7	31. 16	37. 41	7. 55	9. 49
6	M.	6	3. 56	44. 4	50. 25	11. 34	13. 10
7	Tu.	7	4. 45	56. 46	63. 5	14. 34	15. 47
8	W.	8	5. 33	69. 24	75. 43	16. 49	17. 38
9	Th.	9	6. 22	82. 1	88. 19	18. 15	18. 39
10	F.	10	7. 10	94. 36	100. 51	18. 51	18. 50
11	Sa.	11	7. 57	107. 6	113. 18	18. 37	18. 11
12	Su.	12	8. 45	119. 29	125. 37	17. 33	16. 44
13	M.	13	9. 31	131. 44	137. 48	15. 44	14. 33
14	Tu.	14	10. 17	143. 50	149. 51	13. 13	11. 43
15	W.	15	11. 3	155. 50	161. 48	10. 6	8. 21
16	Th.	16	11. 48	167. 46	173. 44	6. 29	4. 33
17	F.	17	12. 34	179. 43	185. 44	2. 33 N	0. 30 N
18	Sa.	18	13. 21	191. 48	197. 55	1. 35 S	3. 39 S
19	Su.	19	14. 9	204. 8	210. 26	5. 42	7. 42
20	M.	20	14. 59	216. 50	223. 22	9. 37	11. 26
21	Tu.	21	15. 51	230. 1	236. 49	13. 7	14. 38
22	W.	22	16. 46	243. 44	250. 48	15. 58	17. 4
23	Th.	23	17. 43	257. 59	265. 17	17. 56	18. 33
24	F.	24	18. 41	272. 39	280. 6	18. 52	18. 54
25	Sa.	25	19. 39	287. 34	295. 3	18. 39	18. 5
26	Su.	26	20. 37	302. 31	309. 55	17. 14	16. 6
27	M.	27	21. 33	317. 15	324. 30	14. 43	13. 6
28	Tu.	28	22. 27	331. 39	338. 43	11. 17	9. 17
29	W.	29	23. 20	345. 40	352. 32	7. 10	4. 58
30	Th.	1	♂	359. 18	6. 1	2. 41 S	0. 24 S
31	F.	2	0. 12	12. 39	19. 14	1. 53 N	4. 7 N

VII. MARCH 1775. [31]

Days of the Month.	Days of the Week.	Semidr. Δ at Noon. M. S.	Semidr. Δ at Mid-night. M. S.	Hor. Par. Δ at Noon. M. S.	Hor. Par. Δ at Midnight. M. S.	Proport. Lo- par. at Noon.	Proport. Lo- par. at Midn.
1	W.	16. 30	16. 26	60. 32	60. 19	4733	4748
2	Th.	16. 22	16. 16	60. 3	59. 43	4768	4792
3	F.	16. 10	16. 4	59. 21	58. 57	4819	4848
4	Sa.	15. 57	15. 50	58. 31	58. 5	4880	4912
5	Su.	15. 42	15. 35	57. 38	57. 11	4946	4980
6	M.	15. 28	15. 21	56. 46	56. 21	5012	5044
7	Tu.	15. 15	15. 10	55. 59	55. 38	5072	5099
8	W.	15. 4	15. 0	55. 19	55. 3	5124	5145
9	Th.	14. 56	14. 53	54. 49	54. 38	5163	5178
10	F.	14. 50	14. 49	54. 29	54. 23	5199	5198
11	Sa.	14. 48	14. 48	54. 19	54. 18	5203	5205
12	Su.	14. 48	14. 49	54. 18	54. 22	5205	5199
13	M.	14. 50	14. 52	54. 27	54. 33	5193	5185
14	Tu.	14. 54	14. 57	54. 42	54. 52	5173	5159
15	W.	15. 0	15. 3	55. 3	55. 15	5145	5129
16	Th.	15. 7	15. 11	55. 29	55. 43	5111	5093
17	F.	15. 15	15. 19	55. 57	56. 12	5075	5055
18	Sa.	15. 23	15. 27	56. 26	56. 42	5037	5017
19	Su.	15. 31	15. 35	56. 57	57. 12	4998	4979
20	M.	15. 39	15. 43	57. 26	57. 41	4961	4942
21	Tu.	15. 47	15. 51	57. 55	58. 9	4924	4907
22	W.	15. 54	15. 58	58. 23	58. 36	4890	4874
23	Th.	16. 1	16. 5	58. 48	59. 0	4859	4844
24	F.	16. 8	16. 11	59. 12	59. 22	4830	4817
25	Sa.	16. 13	16. 16	59. 32	59. 40	4805	4795
26	Su.	16. 18	16. 19	59. 47	59. 52	4787	4781
27	M.	16. 20	16. 20	59. 55	59. 56	4777	4776
28	Tu.	16. 19	16. 18	59. 54	59. 50	4778	4783
29	W.	16. 16	16. 14	59. 43	59. 34	4792	4802
30	Th.	16. 11	16. 6	59. 21	59. 6	4819	4837
31	F.	16. 1	15. 56	58. 49	58. 30	4858	4881

Distances of ♀'s Center from Stars, and from ☉ east of her.

Days.	Stars Names.	Noon.	3 Hours.	6 Hours.	9 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
3	Aldeba- ran.	62. 12. 49	60. 26. 26	58. 40. 27	56. 54. 50
4		48. 12. 45	46. 29. 33	44. 46. 47	43. 4. 25
5		34. 38. 55	32. 59. 4	31. 19. 37	29. 40. 35
6		21. 31. 26	19. 54. 46	18. 18. 28	16. 42. 33
7	Pollux.	53. 33. 26	52. 1. 57	50. 30. 52	49. 0. 13
8		41. 33. 6	40. 5. 0	38. 37. 19	37. 10. 7
9	Regulus.	64. 27. 45	62. 57. 47	61. 27. 58	59. 58. 18
10		52. 31. 56	51. 2. 59	49. 34. 7	48. 5. 19
11		40. 42. 2	39. 13. 27	37. 44. 53	36. 16. 18
12		28. 53. 15	27. 24. 31	25. 55. 43	24. 26. 53
13		17. 1. 37			
13	Spica 𐌸	70. 46. 42	69. 17. 47	67. 48. 45	66. 19. 36
14		58. 51. 58	57. 22. 5	55. 52. 4	54. 21. 55
15		46. 49. 5	45. 18. 6	43. 47. 1	42. 15. 47
16		34. 37. 59	33. 6. 10	31. 34. 17	30. 2. 21
17		22. 23. 19	20. 52. 1	19. 21. 7	17. 50. 46
18	Antares.	55. 39. 26	54. 4. 53	52. 30. 14	50. 55. 30
19		43. 0. 47	41. 25. 45	39. 50. 45	38. 15. 47
20		30. 23. 12			
20	α Aquilæ.	79. 48. 42	78. 19. 38	76. 50. 31	75. 21. 24
21		67. 56. 9	66. 27. 19	64. 58. 40	63. 30. 12
22		56. 11. 44	54. 45. 7	53. 19. 0	51. 53. 26
23	β Capri- corni.	42. 12. 59	40. 29. 6	38. 45. 3	37. 0. 51
24		28. 17. 23	26. 32. 14	24. 46. 58	23. 1. 35
22	The Sun.	116. 52. 25	115. 17. 17	113. 41. 58	112. 6. 28
23		104. 6. 19	102. 29. 49	100. 53. 8	99. 16. 18
24		91. 9. 28	89. 31. 35	87. 53. 32	86. 15. 21
25		78. 2. 7	76. 23. 2	74. 43. 49	73. 4. 29
26		64. 45. 54	63. 5. 51	61. 25. 42	59. 45. 27
27		51. 23. 10	49. 42. 32	48. 1. 53	46. 21. 12

IX. MARCH 1775. [33]

Distances of ☽'s Center from Stars, and from ☉ east of her.

Days.	Stars Names.	12 Hours.	15 Hours.	18 Hours.	21 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
2	Aldebaran.	69. 21. 57	67. 34. 8	65. 46. 40	63. 59. 34
3		55. 9. 37	53. 24. 47	51. 40. 22	49. 56. 21
4		41. 22. 29	39. 40. 58	37. 59. 52	36. 19. 11
5		28. 1. 58	26. 23. 45	24. 45. 55	23. 8. 29
6		15. 7. 0			
6	Pollux.	59. 43. 30	58. 10. 22	56. 37. 38	55. 5. 20
7		47. 29. 58	46. 0. 6	44. 30. 40	43. 1. 40
8		35. 43. 22			
8	Regulus.	70. 29. 23	68. 58. 42	67. 28. 12	65. 57. 53
9		58. 28. 47	56. 59. 24	55. 30. 8	54. 0. 59
10		46. 36. 35	45. 7. 54	43. 39. 14	42. 10. 37
11		34. 47. 44	33. 19. 9	31. 50. 33	30. 21. 55
12		22. 57. 58	21. 28. 59	19. 59. 56	18. 30. 49
13	Spica ♀.	64. 50. 19	63. 20. 55	61. 51. 23	60. 21. 44
14		52. 51. 38	51. 21. 12	49. 50. 38	48. 19. 55
15		40. 44. 27	39. 12. 59	37. 41. 25	36. 9. 44
16		28. 30. 24	26. 58. 29	25. 26. 38	23. 54. 53
17		16. 21. 4			
17	Antares.	61. 56. 19	60. 22. 19	58. 48. 9	57. 13. 52
18		49. 20. 40	47. 45. 46	46. 10. 49	44. 35. 49
19		36. 40. 55	35. 6. 10	33. 31. 36	31. 57. 16
20	α Aquilæ.	73. 52. 15	72. 23. 7	70. 54. 4	69. 25. 4
21		62. 1. 55	60. 33. 53	59. 6. 9	57. 38. 45
22		50. 28. 28			
22	β Capricorni.	49. 7. 4	47. 23. 46	45. 40. 19	43. 56. 43
23		35. 16. 29	33. 31. 56	31. 47. 14	30. 2. 23
24		21. 16. 4			
21	The Sun.			120. 2. 8	118. 27. 22
22		110. 30. 48	108. 54. 56	107. 18. 54	105. 42. 41
23		97. 39. 17	96. 2. 5	94. 24. 43	92. 47. 11
24		84. 36. 59	82. 58. 29	81. 19. 50	79. 41. 3
25		71. 25. 0	69. 45. 24	68. 5. 41	66. 25. 51
26		58. 5. 7	56. 24. 43	54. 44. 15	53. 3. 45
27		44. 40. 30	42. 59. 49	41. 19. 9	39. 38. 32

[34]

MARCH 1775.

X.

Distances of γ 's Center from $\odot$, and from Stars west of her.

Days.	Stars Names.	Noon.	3 Hours.	6 Hours.	9 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
4	The Sun.				39. 26. 35
5		47. 14. 39	48. 47. 1	50. 18. 59	51. 50. 32
6		59. 22. 18	60. 51. 29	62. 20. 16	63. 48. 46
7		71. 5. 47	72. 32. 11	73. 58. 16	75. 24. 3
8		82. 28. 42	83. 52. 50	85. 16. 45	86. 40. 25
9		93. 35. 39	94. 58. 9	96. 20. 31	97. 42. 43
10		104. 31. 49	105. 53. 18	107. 14. 43	108. 36. 4
11		115. 22. 5	116. 43. 13	118. 4. 20	119. 25. 27
9	α Arietis.	49. 59. 18	51. 24. 24	52. 49. 32	54. 14. 44
10		61. 21. 0			
10	Aldebaran.	27. 37. 31	29. 6. 28	30. 35. 21	32. 4. 11
11		39. 27. 39	40. 56. 15	42. 24. 52	43. 53. 28
12		51. 16. 48	52. 45. 37	54. 14. 29	55. 43. 25
13		63. 9. 20	64. 38. 48	66. 8. 23	67. 38. 6
14	Pollux.	32. 34. 51	34. 0. 28	35. 26. 36	36. 53. 12
15		44. 12. 24	45. 41. 20	47. 10. 36	48. 40. 10
16	Regulus.	19. 31. 0	21. 4. 16	22. 37. 46	24. 11. 28
17		32. 3. 12	33. 38. 10	35. 13. 20	36. 48. 43
18		44. 48. 42	46. 25. 18	48. 2. 7	49. 39. 7
19		57. 47. 7	59. 25. 18	61. 3. 41	62. 42. 15
20		70. 57. 59			
20	Spica μ	18. 13. 3	19. 47. 46	21. 23. 22	22. 59. 44
21		31. 9. 52	32. 49. 11	34. 28. 50	36. 8. 48
22		44. 32. 48	46. 14. 22	47. 56. 11	49. 38. 14
23		58. 11. 43	59. 54. 59	61. 38. 26	63. 22. 5
24		72. 3. 13			
24	Antares.	27. 25. 25	29. 3. 49	30. 43. 3	32. 23. 3
25		40. 51. 43	42. 34. 48	44. 18. 14	46. 2. 1
26		54. 45. 6	56. 30. 26	58. 15. 57	60. 1. 39
27		68. 52. 15			
27	β Capricorni.	14. 39. 33	16. 27. 7	18. 14. 4	20. 2. 37
28		29. 2. 50	30. 50. 59	32. 39. 6	34. 27. 12
29		43. 26. 52	45. 14. 33	47. 2. 8	48. 49. 36

XI. MARCH 1775. [35]

Distances of J's Center from ☉, and from Stars west of her.

Days.	Stars Names.	12 Hours.	15 Hours.	18 Hours.	21 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
4	The Sun.	41. 1. 2	42. 35. 4	44. 8. 40	45. 41. 52
5		53. 21. 41	54. 52. 25	56. 22. 46	57. 52. 44
6		65. 16. 52	66. 44. 36	68. 12. 0	69. 39. 4
7		76. 49. 32	78. 14. 44	79. 39. 39	81. 4. 19
8		88. 3. 52	89. 27. 6	90. 50. 8	92. 12. 59
9		99. 4. 47	100. 26. 42	101. 48. 31	103. 10. 13
10		109. 57. 20	111. 18. 34	112. 39. 46	114. 0. 57
11		120. 46. 34			
8	♈ Arietis.	44. 19. 36	45. 44. 24	47. 9. 17	48. 34. 15
9		55. 39. 57	57. 5. 12	58. 30. 27	59. 55. 44
10	Aldebaran.	33. 32. 57	35. 1. 40	36. 30. 22	37. 59. 1
11		45. 22. 6	46. 50. 43	48. 19. 22	49. 48. 4
12		57. 12. 26	58. 41. 31	60. 10. 42	61. 39. 58
13		69. 7. 56			
13	Pollux.	26. 58. 25	28. 21. 29	29. 45. 17	31. 9. 46
14		38. 20. 15	39. 47. 43	41. 15. 34	42. 43. 48
15		50. 9. 59			
15	Regulus.	13. 20. 8	14. 52. 31	16. 25. 7	17. 57. 57
16		25. 45. 24	27. 19. 32	28. 53. 53	30. 28. 26
17		38. 24. 18	40. 0. 5	41. 36. 5	43. 12. 17
18		51. 16. 20	52. 53. 44	54. 31. 20	56. 9. 8
19		64. 21. 1	65. 59. 59	67. 39. 7	69. 18. 27
20	♋ Spica	24. 36. 46	26. 14. 20	27. 52. 24	29. 30. 56
21		37. 49. 4	39. 29. 36	41. 10. 24	42. 51. 28
22		51. 20. 30	53. 3. 0	54. 45. 42	56. 28. 36
23		65. 5. 55	66. 49. 57	68. 34. 10	70. 18. 36
24	Antares.	34. 3. 44	35. 44. 59	37. 26. 46	39. 9. 1
25		47. 46. 6	49. 30. 28	51. 15. 6	52. 59. 58
26		61. 47. 31	63. 33. 32	65. 19. 40	67. 5. 54
27	♏ Capricorni.	21. 50. 32	23. 38. 32	25. 26. 35	27. 14. 42
28		36. 15. 17	38. 3. 17	39. 51. 13	41. 39. 5
29		50. 36. 57			

Configurations of the SATELLITES of JUPITER
at 8 o'clock in the Evening.

1	1●			⊙ 3 6 4 ²	
2		2.		⊙ .1	.4.3
3		1.	.2	⊙	3.
4				⊙	3. .1 .2
5	2●	3.	.1	⊙	.4
6		3.	.2	⊙	1. .4
7		.3	.1	⊙ .2	4.
8	3.0			⊙ 1.	2. 4.
9		2.		⊙ 4.	.1 .3
10		4.	.1.	⊙	3.
11		4.		⊙	3. .1 .2
12	4.		1.3.	⊙ 2.	
13	4.	3.	.2.	⊙	1.
14	.4	.3	.1	⊙	2.0
15	.4		.3	⊙ 1.	2.
16	1.0	.4	2.	⊙	.3
17	1●	.2.4		⊙	3.
18				⊙ 1 6 4 ³	.1
19		1. 3.		⊙ 2.	.4
20		3.	2.	⊙	.1 .4
21		.1	.1 .2	⊙	.4
22		.3		⊙ 1.	2. .4
23	2●		.1	⊙	.3 4.
24	1●	.2		⊙	.3 4.
25				⊙ .1 .2	4.3.
26	3●4●	1.		⊙ 2.	
27		3.4.2.		⊙	.1
28		4.	.3 .1 .2	⊙	
29	4.		.3	⊙ 1.	.2
30	4.		.1	⊙	.3 2●
31	.4	.2		⊙ 1.	.3

Days of the Month.	Days of the Week.	Sundays, Holidays, &c.	Phases of the Moon.
			D. H. M.
1	Sa.		First Quarter — 7. 11. 31
2	Su.	5th Sunday in Lent.	Full Moon — 15. 9. 50
3	M.	Rich. Bp. of Chichester.	Last Quarter — 22. 8. 18
4	Tu.	S. Ambrose.	New Moon — 29. 8. 16
5	W.		Other Phenomena.
6	Th.		D.
7	F.	Cambridge Term ends.	1. ☾ μ Ceti 22 ^h . 23 ['] .
8	Sa.	Oxford Term ends.	3. ☾ γ 18 ^h . 26 ['] .
9	Su.	6th Su. in Lent. Palm Su.	☾ 2 ad δ 20 ^h . 56 ['] .
10	M.		4. ☾ α 2 ^h . 0 ['] .
11	Tu.		5. ♂ Stationary.
12	W.		6. ♀ Stationary.
13	Th.		10. ☾ ν Ω 12 ^h . 52 ['] .
14	F.	Good Friday.	☾ α Ω 17 ^h . 51 ['] .
15	Sa.		11. ☾ ρ Ω 6 ^h . 51 ['] .
16	Su.	Easter Day.	☾ χ Ω 22 ^h . 52 ['] .
17	M.	Easter Monday.	12. ☾ σ Ω 8 ^h . 53 ['] .
18	Tu.	Easter Tuesday.	13. ☾ h 18 ^h . 15 ['] .
19	W.	Alphege.	☾ γ Ω 23 ^h . 43 ['] .
20	Th.		17. ☾ γ ♄ 8 ^h . 13 ['] .
21	F.		☾ η ♄ Im. 10 ^h . 59 ['] .
22	Sa.		15 ^h 3 ['] S. of ♄'s center.
23	Su.	1st Su. after East. Low Su.	Em. 11 ^h . 19 ['] . * 14 ^h 3 [']
24	M.	[St. George.	S. of ♄'s center.
25	Tu.	St. Mark.	☾ ↓ ♄ 17 ^h . 20 ['] .
26	W.	Oxford & Camb. Terms	18. ☾ ♀ Serpentar. 7 ^h . 35 ['] .
27	Th.	[begin.	19. ☾ enters ♄ at 19 ^h . 33 ['] .
28	F.		24. ☾ λ ♄ 21 ^h . 40 ['] .
29	Sa.		25. ☾ φ ♄ 7 ^h . 14 ['] .
30	Su.	2d Sunday after Easter.	27. ☾ ♂ 6 ^h . 15 ['] .
			29. ☾ μ Ceti 7 ^h . 23 ['] .

Days of the Month.	Days of the Week.	Sun's Longitude.	Sun's Right Asc. in Time.	Sun's Declin. North.	Equat. of Time. Add.	Diff.
		S. D. M. S.	H. M. S.	D. M. S.	M. S.	S.
1	Sa.	0. 11. 34. 43	0. 42. 34, 5	4. 35. 4	3. 56, 8	18, 3
2	Su.	0. 12. 33. 47	0. 46. 12, 8	4. 58. 8	3. 38, 5	18, 1
3	M.	0. 13. 32. 50	0. 49. 51, 2	5. 21. 8	3. 20, 4	17, 9
4	Tu.	0. 14. 31. 50	0. 53. 29, 7	5. 44. 2	3. 2, 5	17, 8
5	W.	0. 15. 30. 48	0. 57. 8, 4	6. 6. 50	2. 44, 7	17, 7
6	Th.	0. 16. 29. 44	1. 0. 47, 3	6. 29. 32	2. 27, 0	17, 5
7	F.	0. 17. 28. 37	1. 4. 26, 3	6. 52. 7	2. 9, 5	17, 3
8	Sa.	0. 18. 27. 28	1. 8. 5, 5	7. 14. 34	1. 52, 2	17, 0
9	Su.	0. 19. 26. 16	1. 11. 44, 9	7. 36. 54	1. 35, 2	16, 9
10	M.	0. 20. 25. 2	1. 15. 24, 6	7. 59. 7	1. 18, 3	16, 6
11	Tu.	0. 21. 23. 46	1. 19. 4, 6	8. 21. 11	1. 1, 7	16, 3
12	W.	0. 22. 22. 28	1. 22. 44, 8	8. 43. 7	0. 45, 4	16, 0
13	Th.	0. 23. 21. 7	1. 26. 25, 3	9. 4. 54	0. 29, 4	15, 7
14	F.	0. 24. 19. 44	1. 30. 6, 1	9. 26. 32	0. 13, 7	15, 3
15	Sa.	0. 25. 18. 20	1. 33. 47, 2	9. 48. 1	Sub. 1, 6	15, 0
16	Su.	0. 26. 16. 53	1. 37. 28, 8	10. 9. 20	0. 16, 6	14, 6
17	M.	0. 27. 15. 25	1. 41. 10, 7	10. 30. 29	0. 31, 2	14, 3
18	Tu.	0. 28. 13. 55	1. 44. 52, 9	10. 51. 28	0. 45, 5	13, 8
19	W.	0. 29. 12. 23	1. 48. 35, 6	11. 12. 16	0. 59, 3	13, 3
20	Th.	1. 0. 10. 50	1. 52. 18, 8	11. 32. 53	1. 12, 6	13, 0
21	F.	1. 1. 9. 15	1. 56. 2, 3	11. 53. 19	1. 25, 6	12, 5
22	Sa.	1. 2. 7. 38	1. 59. 46, 3	12. 13. 34	1. 38, 1	12, 1
23	Su.	1. 3. 6. 0	2. 3. 30, 8	12. 33. 36	1. 50, 2	11, 5
24	M.	1. 4. 4. 21	2. 7. 15, 8	12. 53. 27	2. 1, 7	11, 0
25	Tu.	1. 5. 2. 40	2. 11. 1, 3	13. 13. 5	2. 12, 7	10, 6
26	W.	1. 6. 0. 58	2. 14. 47, 3	13. 32. 30	2. 23, 3	10, 0
27	Th.	1. 6. 59. 14	2. 18. 33, 8	13. 51. 42	2. 33, 3	9, 5
28	F.	1. 7. 57. 29	2. 22. 20, 9	14. 10. 40	2. 42, 8	8, 9
29	Sa.	1. 8. 55. 42	2. 26. 8, 5	14. 29. 24	2. 51, 7	8, 4
30	Su.	1. 9. 53. 53	2. 29. 56, 6	14. 47. 55	3. 0, 1	8, 0

III. A P R I L 1775. [39]

Days of the Month.	Semidia- meter of the Sun.	Time of D ^o passing the Meridian.	Hourly Motion of the Sun.	Logarithm of the Sun's Distance.	Place of the Moon's Node.
	M. S.	M. S.	M. S.		S. D. M.
1	16. 2,3	1. 4,4	2. 27,6	0.000218	5. 1. 58
7	16. 0,7	1. 4,5	2. 27,2	0.000950	5. 1. 39
13	15. 59,1	1. 4,7	2. 26,6	0.001667	5. 1. 20
19	15. 57,5	1. 5,1	2. 26,1	0.002387	5. 1. 1
25	15. 56,0	1. 5,5	2. 25,6	0.003096	5. 0. 42

Eclipses of the SATELLITES of J U P I T E R.

I. Satellite. Emerfions.		II. Satellite. Emerfions.		III. Satellite.	
Days	H. M. S.	Days	H. M. S.	Days	H. M. S.
2	6. 35. 30	3	0. 8. 27	2	13. 58. 14 I
4	1. 4. 56	6	13. 27. 25	2	15. 37. 44 E
5	19. 34. 19	10	2. 46. 14	9	18. 1. 36 I
7	14. 3. 44	13	16. 4. 57	9	19. 41. 52 E
9	8. 33. 7	17	5. 23. 34	16	22. 4. 36 I
11	3. 2. 32			16	23. 45. 46 E
12	21. 31. 52				
14	16. 1. 11				
16	10. 30. 28				
				IV. Satellite. Conjunctions.	
				4	3. 12. 23 Inf.
				12	12. 22. 0 Sup.

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A P R I L 1775.

IV.

Days.	Heliocen- tric Lon- gitude.	Heliocen- tric Lati- tude.	Geocen- tric Lon- gitude.	Geocen- tric Lati- tude.	Declina- tion.	Passage over Merid.
	S. D. M.	D. M.	S. D. M.	D. M.	D. M.	H. M.

MERCURY. Gr. Elong. 21^d.

1	7. 1. 9	1. 47 N	11. 27. 38	1. 17 N	0. 14 N	23. 2
7	7. 19. 3	0. 24 S	11. 26. 14	0. 16 S	1. 45 S	22. 39
13	8. 5. 50	2. 24	11. 27. 55	1. 32	2. 14	22. 27
19	8. 22. 19	4. 10	0. 2. 9	2. 22	1. 19 S	22. 23
25	9. 9. 15	5. 37	0. 8. 19	2. 49	0. 43 N	22. 25

V E N U S.

1	2. 0. 49	0. 49 S	1. 1. 57	0. 22 S	11. 49 N	1. 17
7	2. 10. 29	0. 15 S	1. 9. 19	0. 7 S	14. 30	1. 23
13	2. 20. 10	0. 20 N	1. 16. 39	0. 9 N	16. 59	1. 30
19	2. 29. 51	0. 54	1. 23. 59	0. 26	19. 13	1. 37
25	3. 9. 34	1. 26	2. 1. 17	0. 42	21. 8	1. 45

M A R S.

1	5. 21. 14	1. 33 N	4. 25. 21	3. 13 N	16. 7 N	9. 11
7	5. 23. 53	1. 30	4. 25. 14	2. 58	15. 55	8. 49
13	5. 26. 33	1. 27	4. 25. 34	2. 43	15. 34	8. 28
19	5. 29. 13	1. 24	4. 26. 17	2. 29	15. 6	8. 8
25	6. 1. 55	1. 20	4. 27. 21	2. 16	14. 32	7. 49

J U P I T E R.

1	1. 24. 27	0. 55 S	1. 17. 42	0. 48 S	16. 22 N	2. 19
7	1. 24. 59	0. 55	1. 18. 59	0. 47	16. 44	2. 2
13	1. 25. 32	0. 54	1. 20. 19	0. 46	17. 6	1. 45
19	1. 26. 4	0. 54	1. 21. 40	0. 45	17. 28	1. 29
25	1. 26. 36	0. 53	1. 23. 2	0. 44	17. 50	1. 12

S A T U R N.

1	6. 5. 46	2. 25 N	6. 5. 5	2. 41 N	0. 27 N	11. 39
7	6. 5. 58	2. 25	6. 4. 37	2. 41	0. 38	11. 15
13	6. 6. 10	2. 25	6. 4. 11	2. 41	0. 48	10. 51
19	6. 6. 22	2. 25	6. 3. 46	2. 40	0. 57	10. 28
25	6. 6. 34	2. 25	6. 3. 23	2. 39	1. 5	10. 4

V. APRIL 1775. [41]

Days of the Month.	Days of the Week.	Moon's Longitude at Noon.	Moon's Longitude at Midnight.	Moon's Latitude at Noon.	Moon's Latitude at Midn.
		S. D. M. S.	S. D. M. S.	D. M. S.	D. M. S.
1	Sa.	0. 26. 10. 41	1. 2. 58. 2	4. 8. 4 S	4. 28. 24 S
2	Su.	1. 9. 40. 17	1. 16. 17. 17	4. 44. 45	4. 57. 0
3	M.	1. 22. 48. 51	1. 29. 15. 14	5. 5. 13	5. 9. 25
4	Tu.	2. 5. 36. 23	2. 11. 52. 37	5. 9. 44	5. 6. 18
5	W.	2. 18. 4. 24	2. 24. 11. 57	4. 59. 17	4. 48. 56
6	Th.	3. 0. 15. 53	3. 6. 16. 43	4. 35. 23	4. 18. 55
7	F.	3. 12. 15. 0	3. 18. 11. 25	3. 59. 43	3. 38. 2
8	Sa.	3. 24. 6. 35	4. 0. 1. 7	3. 14. 6	2. 48. 9
9	Su.	4. 5. 55. 44	4. 11. 50. 59	2. 20. 21	1. 51. 1
10	M.	4. 17. 47. 36	4. 23. 46. 13	1. 20. 25	0. 48. 44 S
11	Tu.	4. 29. 47. 16	5. 5. 51. 22	0. 16. 23 S	0. 16. 27 N
12	W.	5. 11. 58. 57	5. 18. 10. 30	0. 49. 20 N	1. 21. 57
13	Th.	5. 24. 26. 12	6. 0. 46. 28	1. 53. 54	2. 24. 49
14	F.	6. 7. 11. 20	6. 13. 40. 53	2. 54. 13	3. 21. 40
15	Sa.	6. 20. 15. 16	6. 26. 54. 10	3. 46. 47	4. 9. 6
16	Su.	7. 3. 37. 28	7. 10. 24. 48	4. 28. 9	4. 43. 38
17	M.	7. 17. 15. 53	7. 24. 10. 17	4. 55. 10	5. 2. 29
18	Tu.	8. 1. 7. 28	8. 8. 7. 6	5. 5. 25	5. 3. 48
19	W.	8. 15. 8. 37	8. 22. 11. 32	4. 57. 36	4. 46. 54
20	Th.	8. 29. 15. 29	9. 6. 20. 1	4. 31. 44	4. 12. 25
21	F.	9. 13. 24. 51	9. 20. 29. 42	3. 49. 13	3. 22. 29
22	Sa.	9. 27. 34. 18	10. 4. 38. 28	2. 52. 39	2. 20. 10
23	Su.	10. 11. 42. 5	10. 18. 44. 58	1. 45. 37	1. 9. 30 N
24	M.	10. 25. 47. 3	11. 2. 48. 9	0. 32. 23 N	0. 5. 6 S
25	Tu.	11. 9. 48. 11	11. 16. 46. 52	0. 42. 23 S	1. 18. 51
26	W.	11. 23. 44. 9	0. 0. 39. 40	1. 54. 0	2. 27. 17
27	Th.	0. 7. 33. 12	0. 14. 24. 20	2. 58. 10	3. 26. 17
28	F.	0. 21. 12. 55	0. 27. 58. 32	3. 51. 13	4. 12. 39
29	Sa.	1. 4. 40. 49	1. 11. 19. 32	4. 30. 25	4. 44. 19
30	Su.	1. 17. 54. 24	1. 24. 25. 14	4. 54. 14	5. 0. 12

Days of the Month.	Days of the Week.	D's Age.	D's Pass- age over Merid.	D's Right Ascen. at Noon.	D's Right Asc. at Midn.	D's De- clin. at Noon.	D's De- clin. at Midn.
			H. M.	D. M.	D. M.	D. M.	D. M.
1	Sa.	3	1. 3	25. 47	32. 18	6. 16 N	8. 18 N
2	Su.	4	1. 53	38. 47	45. 16	10. 13	11. 59
3	M.	5	2. 42	51. 44	58. 12	13. 34	14. 58
4	Tu.	6	3. 32	64. 39	71. 5	16. 11	17. 11
5	W.	7	4. 21	77. 30	83. 54	17. 58	18. 32
6	Th.	8	5. 10	90. 17	96. 37	18. 52	19. 0
7	F.	9	5. 59	102. 56	109. 12	18. 55	18. 37
8	Sa.	10	6. 46	115. 25	121. 35	18. 7	17. 25
9	Su.	11	7. 33	127. 42	133. 47	16. 32	15. 28
10	M.	12	8. 19	139. 49	145. 49	14. 14	12. 50
11	Tu.	13	9. 5	151. 48	157. 45	11. 18	9. 38
12	W.	14	9. 50	163. 42	169. 40	7. 50	5. 56
13	Th.	15	10. 36	175. 39	181. 40	3. 57 N	1. 54 N
14	F.	16	11. 23	187. 45	193. 54	0. 11 S	2. 18 S
15	Sa.	17	12. 11	200. 8	206. 28	4. 25	6. 30
16	Su.	18	13. 1	212. 55	219. 30	8. 32	10. 28
17	M.	19	13. 54	226. 13	233. 4	12. 17	13. 57
18	Tu.	20	14. 49	240. 4	247. 12	15. 25	16. 41
19	W.	21	15. 46	254. 27	261. 48	17. 42	18. 27
20	Th.	22	16. 44	269. 13	276. 41	18. 56	19. 7
21	F.	23	17. 42	284. 10	291. 38	18. 59	18. 34
22	Sa.	24	18. 39	299. 3	306. 24	17. 51	16. 51
23	Su.	25	19. 34	313. 40	320. 49	15. 36	14. 7
24	M.	26	20. 28	327. 52	334. 48	12. 26	10. 34
25	Tu.	27	21. 20	341. 37	348. 22	8. 33	6. 26
26	W.	28	22. 10	355. 0	1: 35	4. 14 S	2. 0 S
27	Th.	29	23. 0	8. 7	14. 36	0. 16 N	2. 31 N
28	F.	30	23. 49	21. 3	27. 29	4. 43	6. 50
29	Sa.	1	0	33. 56	40. 23	8. 51	10. 44
30	Su.	2	0. 39	46. 50	53. 19	12. 28	14. 3

VII. A P R I L 1775. [43]

Days of the Month.	Days of the Week.	Semidr. Δ at Noon.	Semidr. Δ at Mid-night.	Hor. Par. Δ at Noon.	Hor. Par. Δ at Midnight.	Propor. Lo- gar. at Noon.	Propor. Lo- gar. at Midn.
		M. S.	M. S.	M. S.	M. S.		
1	Sa.	15. 51	15. 45	58. 9	57. 47	4907	4934
2	Su.	15. 39	15. 32	57. 25	57. 2	4962	4991
3	M.	15. 26	15. 20	56. 39	56. 18	5021	5048
4	Tu.	15. 15	15. 10	55. 57	55. 38	5075	5099
5	W.	15. 5	15. 1	55. 21	55. 5	5122	5142
6	Th.	14. 57	14. 54	54. 52	54. 42	5159	5173
7	F.	14. 52	14. 51	54. 33	54. 28	5185	5191
8	Sa.	14. 50	14. 49	54. 25	54. 24	5195	5197
9	Su.	14. 50	14. 51	54. 26	54. 31	5194	5187
10	M.	14. 53	14. 56	54. 38	54. 47	5178	5166
11	Tu.	14. 58	15. 2	54. 58	55. 11	5152	5134
12	W.	15. 6	15. 10	55. 26	55. 42	5115	5094
13	Th.	15. 16	15. 20	56. 0	56. 17	5071	5049
14	F.	15. 25	15. 30	56. 36	56. 54	5025	5002
15	Sa.	15. 35	15. 40	57. 13	57. 31	4977	4955
16	Su.	15. 45	15. 49	57. 48	58. 4	4933	4913
17	M.	15. 53	15. 57	58. 19	58. 32	4895	4878
18	Tu.	16. 0	16. 3	58. 44	58. 55	4864	4850
19	W.	16. 6	16. 7	59. 4	59. 11	4839	4831
20	Th.	16. 9	16. 10	59. 17	59. 21	4823	4819
21	F.	16. 11	16. 11	59. 24	59. 26	4815	4812
22	Sa.	16. 12	16. 12	59. 26	59. 26	4812	4812
23	Su.	16. 11	16. 10	59. 24	59. 21	4815	4819
24	M.	16. 9	16. 8	59. 17	59. 12	4823	4830
25	Tu.	16. 6	16. 4	59. 6	58. 58	4837	4846
26	W.	16. 2	15. 59	58. 49	58. 38	4858	4871
27	Th.	15. 55	15. 52	58. 26	58. 12	4886	4903
28	F.	15. 48	15. 43	57. 58	57. 42	4921	4941
29	Sa.	15. 39	15. 34	57. 26	57. 8	4961	4984
30	Su.	15. 29	15. 24	56. 50	56. 32	5006	5029

[44]

A P R I L 1775.

VIII.

Distances of ☿'s Center from Stars, and from ☉ east of her.

Days	Stars Names.	Noon.	3 Hours.	6 Hours.	9 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
2	Aldebaran.	26. 52. 22	25. 12. 54	23. 33. 48	21. 55. 2
3		13. 46. 34			
3	Pollux.	58. 23. 28	56. 48. 52	55. 14. 42	53. 40. 56
4		45. 58. 33	44. 27. 22	42. 56. 39	41. 26. 24
5		34. 2. 36			
5	Regulus.	68. 45. 48	67. 13. 53	65. 42. 11	64. 10. 44
6		56. 36. 38	55. 6. 23	53. 36. 18	52. 6. 22
7		44. 38. 50	43. 9. 40	41. 40. 35	40. 11. 35
8		32. 47. 30	31. 18. 48	29. 50. 6	28. 21. 24
9		20. 57. 42	19. 28. 52	17. 59. 59	16. 31. 2
10	Spica ♀	62. 53. 26	61. 24. 16	59. 54. 58	58. 25. 33
11		50. 56. 26	49. 26. 9	47. 55. 42	46. 25. 6
12		38. 49. 39	37. 18. 5	35. 46. 21	34. 14. 28
13		26. 33. 43	25. 1. 27	23. 29. 15	21. 57. 10
14		14. 23. 30			
14	Antares.	59. 51. 18	58. 16. 8	56. 40. 44	55. 5. 7
15		47. 4. 21	45. 27. 46	43. 51. 7	42. 14. 25
16		34. 10. 42			
16	♂ Aquilæ.	83. 26. 17	81. 55. 48	80. 25. 10	78. 54. 26
17		71. 20. 11	69. 49. 23	68. 18. 42	66. 48. 9
18		59. 18. 32	57. 49. 33	56. 20. 59	54. 52. 55
19		47. 42. 26			
19	♂ Capricorni.	45. 35. 46	43. 50. 39	42. 5. 27	40. 20. 10
20		31. 32. 45	29. 47. 7	28. 1. 29	26. 15. 50
21		17. 27. 47			
21	♂ Pegasi.	66. 59. 44	65. 22. 1	63. 44. 30	62. 7. 12
22		54. 5. 35	52. 30. 29	50. 55. 54	49. 21. 54
20	The Sun.	120. 48. 55	119. 10. 45	117. 32. 30	115. 54. 13
21		107. 41. 57	106. 3. 23	104. 24. 48	102. 46. 12
22		94. 32. 59	92. 54. 20	91. 15. 42	89. 37. 4
23		81. 24. 10	79. 45. 40	78. 7. 12	76. 28. 47
24		68. 17. 22	66. 39. 15	65. 1. 13	63. 23. 15
25		55. 14. 40	53. 37. 15	51. 59. 58	50. 22. 48
26		42. 18. 54	40. 42. 35	39. 6. 28	

IX.

A P R I L 1775.

[45]

Distances of ♀'s Center from Stars, and from ☉ east of her.

Days.	Stars Names.	12 Hours.	15 Hours.	18 Hours.	21 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1	Aldebaran.	33. 33. 36	31. 52. 47	30. 12. 18	28. 32. 10
2		20. 16. 38	18. 38. 35	17. 0. 53	15. 23. 33
3	Pollux.	52. 7. 36	50. 34. 41	49. 2. 12	47. 30. 9
4		39. 56. 38	38. 27. 21	36. 58. 35	35. 30. 20
5	Regulus.	62. 39. 31	61. 8. 30	59. 37. 41	58. 7. 4
6		50. 36. 36	49. 6. 58	47. 37. 28	46. 8. 5
7		38. 42. 40	37. 13. 49	35. 45. 0	34. 16. 14
8		26. 52. 43	25. 24. 0	23. 55. 16	22. 26. 30
9		15. 2. 3			
9	Spica 𐌆	68. 48. 58	67. 20. 15	65. 51. 25	64. 22. 29
10		56. 56. 0	55. 26. 19	53. 56. 30	52. 26. 32
11		44. 54. 20	43. 23. 24	41. 52. 18	40. 21. 4
12		32. 42. 28	31. 10. 23	29. 38. 14	28. 6. 0
13		20. 25. 19	18. 53. 50	17. 22. 52	15. 52. 40
14	Antares.	53. 29. 17	51. 53. 16	50. 17. 6	48. 40. 48
15		40. 37. 39	39. 0. 53	37. 24. 7	35. 47. 23
16	α Aquilæ.	77. 23. 38	75. 52. 46	74. 21. 54	72. 51. 2
17		65. 17. 45	63. 47. 33	62. 17. 35	60. 47. 54
18		53. 25. 24	51. 58. 31	50. 32. 20	49. 6. 57
19	β Capricorni.	38. 34. 48	36. 49. 22	35. 3. 52	33. 18. 20
20		24. 30. 10	22. 44. 31	20. 58. 54	19. 13. 19
21	α Pegasi.	60. 30. 11	58. 53. 29	57. 17. 7	55. 41. 8
22		47. 48. 33			
20	The Sun.	114. 15. 51	112. 37. 26	110. 58. 59	109. 20. 29
21		101. 7. 34	99. 28. 56	97. 50. 17	96. 11. 38
22		87. 58. 27	86. 19. 50	84. 41. 15	83. 2. 42
23		74. 50. 24	73. 12. 3	71. 33. 46	69. 55. 32
24		61. 45. 22	60. 7. 33	58. 29. 49	56. 52. 12
25		48. 45. 45	47. 8. 40	45. 32. 1	43. 55. 23

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A P R I L 1775.

X.

Distances of γ 's Center from $\odot$, and from Stars west of her.

Days.	Stars Names.	Noon.	3 Hours.	6 Hours.	9 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
3	The Sun.	39. 32. 32	41. 1. 33	42. 30. 15	43. 58. 38
4		51. 15. 48	52. 42. 19	54. 8. 33	55. 34. 31
5		62. 40. 22	64. 4. 45	65. 28. 54	66. 52. 50
6		73. 49. 21	75. 12. 6	76. 34. 41	77. 57. 7
7		84. 47. 9	86. 8. 49	87. 30. 24	88. 51. 54
8		95. 38. 34	96. 59. 47	98. 21. 1	99. 42. 14
9		106. 28. 37	107. 50. 0	109. 11. 28	110. 33. 0
10		117. 22. 5	118. 44. 15	120. 6. 33	
8	Aldebaran.	47. 22. 14	48. 50. 59	50. 19. 43	51. 48. 28
9		59. 12. 34	60. 41. 30	62. 10. 31	63. 39. 36
10		71. 6. 33			
10	Pollux.	28. 45. 36	30. 9. 24	31. 33. 50	32. 58. 51
11		40. 11. 7	41. 38. 51	43. 6. 57	44. 35. 26
12		52. 3. 8			
12	Regulus.	15. 16. 36	16. 49. 18	18. 22. 15	19. 55. 28
13		27. 45. 31	29. 20. 22	30. 55. 29	32. 30. 53
14		40. 31. 58	42. 9. 0	43. 46. 19	45. 23. 55
15		53. 36. 7	55. 15. 21	56. 54. 51	58. 34. 36
16		66. 57. 8			
16	Spica μ	14. 27. 3	16. 0. 23	17. 35. 21	19. 11. 37
17		27. 25. 32	29. 6. 5	30. 47. 4	32. 28. 25
18		40. 59. 47	42. 42. 51	44. 26. 7	46. 9. 37
19		54. 49. 39	56. 34. 5	58. 18. 39	60. 3. 19
20		68. 48. 15	70. 33. 29	72. 18. 47	74. 4. 8
21	Antares.	37. 41. 23	39. 23. 40	41. 6. 15	42. 49. 6
22		51. 26. 16	53. 10. 7	54. 54. 4	56. 38. 7
23		65. 19. 17	67. 3. 37	68. 47. 58	70. 32. 19
24		79. 13. 59			
24	β Capricorni.	25. 10. 38	26. 56. 5	28. 41. 31	30. 26. 55
25		39. 13. 12	40. 58. 15	42. 43. 12	44. 28. 4
26		53. 11. 1			
26	α Aquilæ	61. 11. 9	62. 41. 16	64. 11. 38	65. 42. 15
27		73. 17. 53	74. 49. 17	76. 20. 41	77. 52. 5
28		85. 28. 20			

Distances of β 's Center from $\odot$, and from Stars west of her.

Days.	Stars Names.	12 Hours.	15 Hours.	18 Hours.	21 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
3		45. 26. 41	46. 54. 25	48. 21. 51	49. 48. 59
4		57. 0. 12	58. 25. 33	59. 50. 48	61. 15. 43
5		68. 16. 32	69. 40. 2	71. 3. 19	72. 26. 26
6	The Sun.	79. 19. 23	80. 41. 30	82. 3. 30	83. 25. 23
7		90. 13. 20	91. 34. 42	92. 56. 2	94. 17. 19
8		101. 3. 27	102. 24. 41	103. 45. 58	105. 7. 16
9		111. 54. 36	113. 16. 18	114. 38. 7	116. 0. 3
7	Aldebaran.	41. 26. 55	42. 55. 48	44. 24. 39	45. 53. 28
8		53. 17. 13	54. 46. 0	56. 14. 49	57. 43. 40
9		65. 8. 46	66. 38. 2	68. 7. 25	69. 36. 55
10	Pollux.	34. 24. 23	35. 50. 24	37. 16. 52	38. 43. 47
11		46. 4. 18	47. 33. 31	49. 3. 3	50. 32. 56
12	Regulus.	21. 28. 56	23. 2. 40	24. 36. 41	26. 10. 58
13		34. 6. 33	35. 42. 29	37. 18. 42	38. 55. 12
14		47. 1. 47	48. 39. 57	50. 18. 24	51. 57. 7
15		60. 14. 36	61. 54. 51	63. 35. 22	65. 16. 7
16	Spica μ	20. 48. 54	22. 27. 3	24. 5. 57	25. 45. 28
17		34. 10. 6	35. 52. 6	37. 34. 24	39. 16. 58
18		47. 53. 18	49. 37. 9	51. 21. 10	53. 5. 20
19		61. 48. 7	63. 33. 1	65. 18. 0	67. 3. 5
20		75. 49. 33	77. 34. 1	79. 18. 0	81. 1. 5
20	Antares.	30. 56. 12	32. 36. 46	34. 17. 52	35. 59. 26
21		44. 32. 11	46. 15. 28	47. 58. 55	49. 42. 32
22		58. 22. 14	60. 6. 26	61. 50. 40	63. 34. 57
23		72. 16. 41	74. 1. 2	75. 45. 22	77. 29. 42
24	β Capricorni.	32. 12. 17	33. 57. 36	35. 42. 52	37. 28. 4
25		46. 12. 51	47. 57. 32	49. 42. 8	51. 26. 37
26	α Aquilæ.	67. 13. 5	68. 44. 6	70. 15. 15	71. 46. 31
27		79. 23. 29	80. 54. 50	82. 26. 6	83. 57. 16

Configurations of the SATELLITES of JUPITER
at 8 o' th' Clock in the Evening.

1	I.O	.4		⊙	.2	3.	
2		.4		1. ⊙ 3.	2.		
3		3. 2.	.4	⊙	.1		
4		.3	1. .2	⊙	.4		
5		.3		⊙	1. .2 .4		
6		.1		⊙ 2.	.3	.4	
7		.2		⊙ 1.	.3	.4	
8	I.O			⊙ .2	3.	4.	
9	I●			⊙ 3. 2.		4.	
10		3. 3.		⊙ .1		4.	
11		3.	1. .2	⊙	4.		
12		.3		4. ⊙	.1 .2		
13	3.O	4.	.1	⊙ 2.			
14		4.	2.	⊙ 1.	.3		
15	4.		.1	⊙	3.	2.O	
16	4.			⊙ 3. 2.		I●	

The Satellites of JUPITER cannot be observed from this
Time till about the Middle of JUNE, because
of his Nearness to the SUN.

I. MAY 1775. [49]			Phases of the Moon.
Days of the Month.	Days of the Week.	Sundays, Holidays, &c.	D.H.M.
1	M.	S. Phil. & S. James. From	First Quarter — 7. 6. 28
2	Tu.	[East. in 15 days, 1 ret.	Full Moon — 14. 20. 32
3	W.	Easter Ter. begins, In-	Last Quarter — 21. 13. 48
4	Th.	[vention of the Crofs.	New Moon — 28. 20. 33
5	F.		Other Phenomena.
6	Sa.	John Evan. ante P. Lat.	D.
7	Su.	3d Sunday after Easter.	1. ☾ γ δ 3 ^h . 23'.
8	M.	From East. in 3 weeks,	☾ 2 ad δ 5 ^h . 52'.
9	Tu.	[2 ret.	☾ α δ 10 ^h . 53'.
10	W.		3. ☾ ν π 15 ^h . 12'.
11	Th.		7. ☾ ν Ω 21 ^h . 11'.
12	F.		8. ☾ α Ω 2 ^h . 13'.
13	Sa.		☾ ρ Ω 15 ^h . 19'.
14	Su.	4th Sunday after Easter.	9. ☾ χ Ω 7 ^h . 28'.
15	M.	From Easter in 1 month,	☾ σ Ω 15 ^h . 40'.
16	Tu.	[3 ret.	11. ☾ h 0 ^h . 25'.
17	W.		☾ γ ιξ 8 ^h . 44'.
18	Th.		14. ♀ infra cornu bor. δ
19	F.	Q. Charlotte born, 1744.	diff. Lat. 21'.
20	Sa.	[Dunstan.	☾ γ ≈ 16 ^h . 42'.
21	Su.	5th Su. after East. Rogat.	☾ η ≈ 20 ^h . 31'.
22	M.	Prs. Eliz. born. From	15. ☾ ↓ ≈ 1 ^h . 38'.
23	Tu.	[East. in 5 weeks, 4 ret.	☾ φ Serpentar. 15 ^h . 34'.
24	W.		20. ☉ enters π at 20 ^h . 11'.
25	Th.	Ascension-day. Holy Th.	22. ☾ λ ≈ 3 ^h . 7'.
26	F.	Mor. of Asc. 5 ret. Aug.	☾ φ ≈ 12 ^h . 44'.
27	Sa.	Ven. Bede. [Abp. Cant.	24. ♀ ε π diff. Lat. 15'.
28	Su.	Sunday after Ascension-day.	26. ☾ μ Ceti 14 ^h . 29'.
29	M.	K. Charles II. rest. Term	
30	Tu.	[ends.	
31	W.	Cam. Term divides mid.	

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M A Y 1775.

II.

Days of the Month.	Days of the Week.	Sun's Longitude.	Sun's Right Asc. in Time.	Sun's Declin. North.	Equat. of Time. Sub.	Diff.
		S. D. M. S.	H. M. S.	D. M. S.	M. S.	S.
1	M.	1. 10. 52. 3	2. 33. 45. 2	15. 6. 11	3. 8. 1	7, 3
2	Tu.	1. 11. 50. 11	2. 37. 34. 3	15. 24. 11	3. 15. 4	6, 9
3	W.	1. 12. 48. 17	2. 41. 24. 0	15. 41. 57	3. 22. 3	6, 3
4	Th.	1. 13. 46. 21	2. 45. 14. 3	15. 59. 26	3. 28. 6	5, 8
5	F.	1. 14. 44. 24	2. 49. 5. 0	16. 16. 40	3. 34. 4	5, 2
6	Sa.	1. 15. 42. 24	2. 52. 56. 4	16. 33. 38	3. 39. 6	4, 7
7	Su.	1. 16. 40. 22	2. 56. 48. 2	16. 50. 19	3. 44. 3	4, 1
8	M.	1. 17. 38. 19	3. 0. 40. 6	17. 6. 43	3. 48. 4	3, 6
9	Tu.	1. 18. 36. 13	3. 4. 33. 6	17. 22. 50	3. 52. 0	3, 0
10	W.	1. 19. 34. 6	3. 8. 27. 1	17. 38. 40	3. 55. 0	2, 5
11	Th.	1. 20. 31. 57	3. 12. 21. 1	17. 54. 12	3. 57. 5	1, 9
12	F.	1. 21. 29. 47	3. 16. 15. 8	18. 9. 26	3. 59. 4	1, 3
13	Sa.	1. 22. 27. 34	3. 20. 11. 0	18. 24. 22	4. 0. 7	0, 8
14	Su.	1. 23. 25. 20	3. 24. 6. 8	18. 38. 59	4. 1. 5	0, 2
15	M.	1. 24. 23. 5	3. 28. 3. 1	18. 53. 18	4. 1. 7	0, 4
16	Tu.	1. 25. 20. 49	3. 32. 0. 1	19. 7. 17	4. 1. 3	0, 9
17	W.	1. 26. 18. 31	3. 35. 57. 6	19. 20. 57	4. 0. 4	1, 5
18	Th.	1. 27. 16. 12	3. 39. 55. 6	19. 34. 18	3. 58. 9	2, 1
19	F.	1. 28. 13. 52	3. 43. 54. 3	19. 47. 19	3. 56. 8	2, 7
20	Sa.	1. 29. 11. 31	3. 47. 53. 5	20. 0. 0	3. 54. 1	3, 3
21	Su.	2. 0. 9. 9	3. 51. 53. 3	20. 12. 20	3. 50. 8	3, 8
22	M.	2. 1. 6. 46	3. 55. 53. 7	20. 24. 20	3. 47. 0	4, 3
23	Tu.	2. 2. 4. 23	3. 59. 54. 6	20. 35. 59	3. 42. 7	4, 9
24	W.	2. 3. 1. 58	4. 3. 56. 1	20. 47. 17	3. 37. 8	5, 4
25	Th.	2. 3. 59. 33	4. 7. 58. 1	20. 58. 14	3. 32. 4	6, 0
26	F.	2. 4. 57. 7	4. 12. 0. 7	21. 8. 49	3. 26. 4	6, 5
27	Sa.	2. 5. 54. 40	4. 16. 3. 7	21. 19. 2	3. 19. 9	7, 0
28	Su.	2. 6. 52. 13	4. 20. 7. 3	21. 28. 54	3. 12. 9	7, 4
29	M.	2. 7. 49. 44	4. 24. 11. 3	21. 38. 23	3. 5. 5	7, 9
30	Tu.	2. 8. 47. 14	4. 28. 15. 7	21. 47. 29	2. 57. 6	8, 3
31	W.	2. 9. 44. 44	4. 32. 20. 7	21. 56. 13	2. 49. 3	8, 7

III. MAY 1775. [51]

Days of the Month.	Semidia- meter of the Sun.	Time of Do- passing the Meridian.	Hourly Motion of the Sun.	Logarithm of the Sun's Distance.	Place of the Moon's Node.
	M. S.	M. S.	M. S.		S. D. M.
1	15. 54,6	1. 5,9	2. 25,3	0. 003755	5. 0. 23
7	15. 53,2	1. 6,4	2. 24,9	0. 004353	5. 0. 4
13	15. 52,0	1. 6,9	2. 24,6	0. 004902	4. 29. 45
19	15. 50,8	1. 7,4	2. 24,2	0. 005423	4. 29. 25
25	15. 49,8	1. 7,8	2. 23,9	0. 005900	4. 29. 6

The Eclipses of JUPITER's Satellites will not be
visibile this Month, JUPITER being too
near the SUN.

[52] M A Y 1775. IV.

Days.	Heliocen- tric Lon- gitude.	Heliocen- tric Lati- tude.	Geocen- tric Lon- gitude.	Geocen- tric La- titude.	Declina- tion.	Passage over Merid.
	S. D. M.	D. M.	S. D. M.	D. M.	D. M.	H. M.

M E R C U R Y. Sup. δ 28^d. 21^h.

1	9. 27. 25	6. 38 S	0. 16. 1	2. 53 S	3. 39 N	22. 31
7	10. 17. 47	6. 59	0. 25. 0	2. 35	7. 17	22. 42
13	11. 11. 32	6. 18	1. 5. 14	1. 59	11. 25	22. 58
19	0. 9. 55	4. 7	1. 16. 40	1. 6	15. 47	23. 18
25	1. 13. 37	0. 16	1. 29. 12	0. 4	19. 56	23. 45

V E N U S.

1	3. 19. 18	1. 56 N	2. 8. 33	0. 58 N	22. 43 N	1. 53
7	3. 29. 2	2. 22	2. 15. 48	1. 13	23. 55	2. 1
13	4. 8. 47	2. 45	2. 23. 1	1. 26	24. 43	2. 9
19	4. 18. 32	3. 3	3. 0. 12	1. 38	25. 6	2. 17
25	4. 28. 18	3. 15	3. 7. 20	1. 48	25. 4	2. 24

M A R S. $\square$ 29^d. 9^h.

1	6. 4. 37	1. 17 N	4. 28. 45	2. 3 N	13. 51 N	7. 32
7	6. 7. 19	1. 13	5. 0. 26	1. 51	13. 4	7. 15
13	6. 10. 3	1. 9	5. 2. 22	1. 40	12. 12	6. 59
19	6. 12. 48	1. 4	5. 4. 31	1. 30	11. 16	6. 43
25	6. 15. 33	1. 0	5. 6. 52	1. 20	10. 14	6. 28

J U P I T E R. δ 19^d. 14^h.

1	1. 27. 8	0. 52 S	1. 24. 25	0. 44 S	18. 11 N	0. 55
7	1. 27. 40	0. 52	1. 25. 50	0. 43	18. 32	0. 38
13	1. 28. 12	0. 51	1. 27. 14	0. 43	18. 52	0. 20
19	1. 28. 44	0. 51	1. 28. 39	0. 42	19. 12	0. 2
25	1. 29. 16	0. 50	2. 0. 4	0. 42	19. 30	23. 41

S A T U R N.

1	6. 6. 46	2. 25 N	6. 3. 3	2. 39 N	1. 13 N	9. 40
7	6. 6. 58	2. 25	6. 2. 46	2. 38	1. 19	9. 16
13	6. 7. 10	2. 25	6. 2. 31	2. 37	1. 23	8. 52
19	6. 7. 22	2. 26	6. 2. 20	2. 35	1. 27	8. 28
25	6. 7. 34	2. 26	6. 2. 12	2. 34	1. 29	8. 3

V.		M A Y 1775.			[53]
Days of the Month.	Days of the Week.	Moon's Longitude at Noon.	Moon's Longitude at Midnight.	Moon's Latitude at Noon.	Moon's Latitude at Midn.
		S. D. M. S.	S. D. M. S.	D. M. S.	D. M. S.
1	M.	2. 0. 51. 55	2. 7. 14. 20	5. 2. 16 S	5. 0. 30 S
2	Tu.	2. 13. 32. 30	2. 19. 46. 30	4. 55. 3	4. 46. 8
3	W.	2. 25. 56. 44	3. 2. 3. 14	4. 33. 55	4. 18. 41
4	Th.	3. 8. 6. 26	3. 14. 6. 50	4. 0. 36	3. 40. 0
5	F.	3. 20. 4. 50	3. 26. 0. 59	3. 17. 6	2. 52. 10
6	Sa.	4. 1. 55. 56	4. 7. 50. 13	2. 25. 24	1. 57. 10
7	Su.	4. 13. 44. 37	4. 19. 39. 48	1. 27. 37	0. 57. 5 S
8	M.	4. 25. 36. 22	5. 1. 35. 4	0. 25. 47 S	0. 5. 57 N
9	Tu.	5. 7. 36. 31	5. 13. 41. 30	0. 37. 51 N	1. 9. 38
10	W.	5. 19. 50. 29	5. 26. 4. 5	1. 40. 56	2. 11. 20
11	Th.	6. 2. 22. 43	6. 8. 46. 49	2. 40. 35	3. 8. 8
12	F.	6. 15. 16. 44	6. 21. 52. 35	3. 33. 40	3. 56. 42
13	Sa.	6. 28. 34. 21	7. 5. 22. 5	4. 16. 51	4. 33. 38
14	Su.	7. 12. 15. 23	7. 19. 14. 14	4. 46. 39	4. 55. 34
15	M.	7. 26. 17. 15	8. 3. 24. 36	5. 0. 5	5. 0. 0
16	Tu.	8. 10. 35. 16	8. 17. 48. 23	4. 55. 14	4. 45. 41
17	W.	8. 25. 3. 17	9. 2. 18. 55	4. 31. 27	4. 12. 55
18	Th.	9. 9. 34. 40	9. 16. 49. 45	3. 50. 10	3. 23. 44
19	F.	9. 24. 3. 34	10. 1. 15. 35	2. 54. 5	2. 21. 42
20	Sa.	10. 8. 25. 22	10. 15. 32. 48	1. 47. 15	1. 11. 16 N
21	Su.	10. 22. 37. 29	10. 29. 39. 31	0. 34. 23 N	0. 2. 46 S
22	M.	11. 6. 38. 41	11. 13. 34. 56	0. 39. 38 S	1. 15. 41
23	Tu.	11. 20. 28. 23	11. 27. 19. 5	1. 50. 21	2. 23. 9
24	W.	0. 4. 7. 1	0. 10. 52. 15	2. 53. 42	3. 21. 32
25	Th.	0. 17. 34. 43	0. 24. 14. 31	3. 46. 22	4. 7. 55
26	F.	1. 0. 51. 26	1. 7. 25. 32	4. 25. 56	4. 40. 17
27	Sa.	1. 13. 56. 35	1. 20. 24. 41	4. 50. 50	4. 57. 31
28	Su.	1. 26. 49. 40	2. 3. 11. 30	5. 0. 22	4. 59. 27
29	M.	2. 9. 30. 6	2. 15. 45. 26	4. 54. 52	4. 46. 42
30	Tu.	2. 21. 57. 29	2. 28. 6. 30	4. 35. 14	4. 20. 35
31	W.	3. 4. 12. 30	3. 10. 15. 39	4. 3. 2	3. 42. 51

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M A Y 1775.

VI.

Days of the Month.	Days of the Week.	D's Age.	D's Passage over Merid.	D's Right Ascen. at Noon.	D's Right Ascen. at Midn.	D's Declinat. at Noon.	D's Declination at Midn.
			H. M.	D. M.	D. M.	D. M.	D. M.
1	M.	3	1. 28	59. 48	66. 17	15. 25 N	16. 36 N
2	Tu.	4	2. 18	72. 47	79. 16	17. 34	18. 19
3	W.	5	3. 8	85. 44	92. 10	18. 50	19. 8
4	Th.	6	3. 57	98. 34	104. 55	19. 13	19. 4
5	F.	7	4. 45	111. 13	117. 27	18. 43	18. 9
6	Sa.	8	5. 32	123. 37	129. 44	17. 23	16. 26
7	Su.	9	6. 18	135. 47	141. 46	15. 19	14. 2
8	M.	10	7. 3	147. 43	153. 38	12. 36	11. 1
9	Tu.	11	7. 48	159. 32	165. 26	9. 18	7. 29
10	W.	12	8. 32	171. 20	177. 16	5. 34	3. 34 N
11	Th.	13	9. 18	183. 15	189. 18	1. 30 N	0. 36 S
12	F.	14	10. 5	195. 27	201. 42	2. 44 S	4. 52
13	Sa.	15	10. 54	208. 5	214. 37	6. 58	9. 1
14	Su.	16	11. 46	221. 18	228. 9	10. 58	12. 48
15	M.	17	12. 41	235. 11	242. 22	14. 29	15. 57
16	Tu.	18	13. 39	249. 43	257. 12	17. 11	18. 9
17	W.	19	14. 38	264. 47	272. 27	18. 50	19. 14
18	Th.	20	15. 38	280. 8	287. 48	19. 18	19. 2
19	F.	21	16. 36	295. 25	302. 57	18. 28	17. 36
20	Sa.	22	17. 33	310. 22	317. 39	16. 27	15. 3
21	Su.	23	18. 27	324. 47	331. 47	13. 27	11. 39
22	M.	24	19. 18	338. 39	345. 22	9. 42	7. 38
23	Tu.	25	20. 8	351. 58	358. 29	5. 28	3. 15 S
24	W.	26	20. 57	4. 56	11. 19	1. 1 S	1. 13 N
25	Th.	27	21. 45	17. 39	23. 58	3. 25 N	5. 34
26	F.	28	22. 33	30. 17	36. 37	7. 38	9. 35
27	Sa.	29	23. 21	42. 57	49. 19	11. 24	13. 5
28	Su.	1	6	55. 43	62. 9	14. 36	15. 55
29	M.	2	0. 11	68. 36	75. 4	17. 2	17. 57
30	Tu.	3	1. 0	81. 32	88. 0	18. 39	19. 6
31	W.	4	1. 49	94. 27	100. 52	19. 21	19. 22

VII.

M A Y 1775.

[55]

Days of the Month.	Days of the Week.	Semidr. Δ at Noon.	Semidr. Δ at Mid-night.	Hor. Par. Δ at Noon.	Hor. Par. Δ at Midnight.	Propor. Lo-ear. at Noon.	Propor. Lo-ear. at Midn.
		M. S.	M. S.	M. S.	M. S.		
1	M.	15. 19	15. 15	56. 14	55. 57	5053	5075
2	Tu.	15. 10	15. 6	55. 40	55. 24	5097	5118
3	W.	15. 2	14. 58	55. 10	54. 57	5136	5153
4	Th.	14. 55	14. 53	54. 46	54. 37	5167	5179
5	F.	14. 51	14. 50	54. 30	54. 26	5189	5194
6	Sa.	14. 49	14. 49	54. 23	54. 24	5198	5197
7	Su.	14. 50	14. 51	54. 27	54. 33	5193	5185
8	M.	14. 54	14. 57	54. 41	54. 52	5174	5159
9	Tu.	15. 0	15. 5	55. 5	55. 20	5142	5123
10	W.	15. 10	15. 15	55. 38	55. 57	5099	5075
11	Th.	15. 20	15. 26	56. 18	56. 40	5048	5019
12	F.	15. 32	15. 39	57. 3	57. 26	4990	4961
13	Sa.	15. 45	15. 51	57. 49	58. 12	4932	4903
14	Su.	15. 57	16. 3	58. 33	58. 53	4877	4853
15	M.	16. 8	16. 12	59. 11	59. 26	4831	4812
16	Tu.	16. 15	16. 18	59. 40	59. 50	4795	4783
17	W.	16. 20	16. 21	59. 57	60. 1	4775	4770
18	Th.	16. 22	16. 22	60. 3	60. 2	4768	4759
19	F.	16. 20	16. 19	59. 58	59. 52	4773	4781
20	Sa.	16. 17	16. 14	59. 45	59. 36	4789	4800
21	Su.	16. 12	16. 8	59. 26	59. 13	4812	4828
22	M.	16. 5	16. 1	59. 1	58. 48	4843	4859
23	Tu.	15. 57	15. 54	58. 34	58. 20	4876	4893
24	W.	15. 50	15. 46	58. 6	57. 51	4911	4930
25	Th.	15. 42	15. 38	57. 37	57. 22	4947	4966
26	F.	15. 34	15. 30	57. 7	56. 52	4985	5004
27	Sa.	15. 26	15. 22	56. 37	56. 22	5023	5042
28	Su.	15. 17	15. 13	56. 7	55. 52	5062	5081
29	M.	15. 10	15. 6	55. 38	55. 25	5099	5116
30	Tu.	15. 2	14. 59	55. 11	55. 0	5134	5149
31	W.	14. 56	14. 54	54. 49	54. 39	5163	5177

Distances of γ 's Center from Stars, and from $\odot$ east of her.

Days.	Stars Names.	Noon.	3 Hours.	6 Hours.	9 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1	Pollux.	50. 32. 0	48. 58. 52	47. 26. 6	45. 53. 43
2		38. 18. 6	36. 48. 22	35. 19. 10	33. 50. 30
3		26. 36. 53			
3	Regulus.	60. 54. 21	59. 22. 37	57. 51. 6	56. 19. 47
4		48. 46. 3	47. 15. 48	45. 45. 42	44. 15. 45
5		36. 47. 56	35. 18. 43	33. 49. 34	32. 20. 31
6		24. 56. 6	23. 27. 21	21. 58. 38	20. 29. 54
7		13. 6. 9			
7	Spica α	66. 56. 3	65. 27. 37	63. 59. 9	62. 30. 37
8		55. 6. 46	53. 37. 42	52. 8. 30	50. 39. 12
9		43. 10. 39	41. 40. 30	40. 10. 11	38. 39. 42
10		31. 5. 14	29. 33. 59	28. 2. 39	26. 31. 15
11		18. 55. 24	17. 25. 6	15. 55. 32	14. 27. 2
12	Antares.	51. 56. 30	50. 20. 20	48. 43. 58	47. 7. 23
13		39. 1. 46	37. 24. 18	35. 46. 47	34. 9. 14
14	γ Aquilæ.	75. 45. 59	74. 13. 57	72. 41. 53	71. 9. 47
15		63. 29. 47	61. 58. 11	60. 26. 50	58. 55. 47
16		51. 27. 17			
16	β Capri- corni.	50. 8. 14	48. 20. 42	46. 33. 0	44. 45. 9
17		35. 44. 16	33. 55. 54	32. 7. 30	30. 19. 5
18		21. 17. 16			
18	α Pegasi.	70. 36. 18	68. 55. 54	67. 15. 41	65. 35. 43
19		57. 20. 54	55. 43. 14	54. 6. 5	52. 29. 31
20		44. 37. 40	43. 6. 1	41. 35. 30	40. 6. 11
21	γ Arietis.	72. 4. 10	70. 21. 48	68. 39. 40	66. 57. 47
22		58. 32. 50			
19	The Sun.			120. 46. 16	119. 5. 53
20		110. 45. 31	109. 5. 46	107. 26. 9	105. 46. 40
21		97. 31. 38	95. 53. 5	94. 14. 42	92. 36. 30
22		84. 28. 6	82. 51. 0	81. 14. 5	79. 37. 22
23		71. 36. 35	70. 1. 1	68. 25. 38	66. 50. 28
24		58. 57. 35	57. 23. 37	55. 49. 52	54. 16. 20
25		46. 31. 54	44. 59. 40	43. 27. 40	41. 55. 54
31 J. 1	Regulus.	52. 38. 56 40. 35. 25	51. 8. 0	49. 37. 13	48. 6. 35

IX. MAY 1775. [57]

Distances of ☽ Center from Stars, and from ☉ east of her.

Days.	Stars Names.	12 Hours.	15 Hours.	18 Hours.	21 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1	Pollux.	44. 21. 43	42. 50. 8	41. 19. 0	39. 48. 19
2		32. 22. 26	30. 55. 0	29. 28. 15	28. 2. 12
3	Regulus.	54. 48. 41	53. 17. 46	51. 47. 1	50. 16. 27
4		42. 45. 56	41. 16. 15	39. 46. 42	38. 17. 15
5		30. 51. 32	29. 22. 36	27. 53. 43	26. 24. 53
6		19. 1. 12	17. 32. 29	16. 3. 44	14. 34. 57
7	Spica ♀	61. 2. 1	59. 33. 21	58. 4. 34	56. 35. 43
8		49. 9. 46	47. 40. 12	46. 10. 29	44. 40. 38
9		37. 9. 5	35. 38. 20	34. 7. 27	32. 36. 24
10		24. 59. 50	23. 28. 27	21. 57. 12	20. 26. 8
11	Antares.	12. 59. 58			
11		58. 18. 31	56. 43. 26	55. 8. 3	53. 32. 25
12		45. 30. 35	43. 53. 34	42. 16. 26	40. 39. 10
13	α Aquilæ.	32. 31. 41			
13		81. 52. 35	80. 21. 13	78. 49. 38	77. 17. 53
14		69. 37. 38	68. 5. 32	66. 33. 30	65. 1. 34
15	β Capri- corni.	57. 25. 5	55. 54. 50	54. 25. 4	52. 55. 52
16		42. 57. 10	41. 9. 3	39. 20. 52	37. 32. 36
17		28. 30. 40	26. 42. 16	24. 53. 53	23. 5. 33
18	α Pegasi.	63. 56. 1	62. 16. 38	60. 37. 39	58. 59. 3
19		50. 53. 36	49. 18. 23	47. 43. 57	46. 10. 21
20		38. 38. 10			
20	α Arietis.	78. 55. 46	77. 12. 35	75. 29. 35	73. 46. 47
21		65. 16. 11	63. 34. 52	61. 53. 52	60. 13. 11
19	The Sun.	117. 25. 36	115. 45. 25	114. 5. 20	112. 25. 22
20		104. 7. 20	102. 28. 11	100. 49. 10	99. 10. 19
21		90. 58. 27	89. 20. 35	87. 42. 54	86. 5. 24
22		78. 0. 50	76. 24. 29	74. 48. 19	73. 12. 21
23		65. 15. 29	63. 40. 42	62. 6. 7	60. 31. 45
24		52. 43. 1	51. 9. 54	49. 37. 1	48. 4. 21
25		40. 24. 22			
30	Regulus.	58. 44. 21	57. 12. 44	55. 41. 18	54. 10. 2
31		46. 36. 5	45. 5. 43	43. 35. 29	42. 5. 23

Distances of β 's Center from $\odot$, and from Stars west of her.

Days	Stars Names.	Noon.	3 Hours.	6 Hours.	9 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
3	The Sun.	43. 20. 4	44. 43. 55	46. 7. 36	47. 31. 6
4		54. 26. 7	55. 48. 40	57. 11. 5	58. 33. 22
5		65. 23. 1	66. 44. 38	68. 6. 11	69. 27. 40
6		76. 14. 17	77. 35. 30	78. 56. 42	80. 17. 55
7		87. 4. 19	88. 25. 44	89. 47. 13	91. 8. 47
8		97. 58. 3	99. 20. 16	100. 42. 38	102. 5. 8
9		109. 0. 13	110. 23. 50	111. 47. 40	113. 11. 44
10		120. 15. 31			
7	Pollux.	24. 56. 39	26. 18. 23	27. 40. 46	29. 3. 47
8		36. 7. 1	37. 33. 1	38. 59. 24	40. 26. 9
9		47. 45. 4			
9	Regulus.	10. 54. 6	12. 25. 9	13. 56. 28	15. 28. 1
10		23. 9. 45	24. 42. 55	26. 16. 23	27. 50. 9
11		35. 43. 30	37. 19. 8	38. 55. 5	40. 31. 22
12		48. 38. 0	50. 16. 22	51. 55. 6	53. 34. 10
13		61. 54. 48	63. 35. 58	65. 17. 30	66. 59. 23
14	Spica α	22. 34. 45	24. 15. 3	25. 56. 5	27. 37. 46
15		36. 13. 54	37. 58. 25	39. 43. 18	41. 28. 30
16		50. 18. 44	52. 5. 29	53. 52. 25	55. 39. 32
17		64. 37. 20	66. 25. 25	68. 13. 23	70. 1. 25
18		79. 2. 16			
18	Antares.	33. 57. 54	35. 42. 5	37. 26. 35	39. 11. 22
19		47. 58. 11	49. 43. 53	51. 29. 37	53. 15. 22
20		62. 3. 47	63. 49. 20	65. 34. 47	67. 20. 10
21		76. 5. 9			
21	β Capri- corni.	22. 3. 35	23. 49. 16	25. 34. 49	27. 20. 14
22		36. 5. 11	37. 49. 41	39. 34. 0	41. 18. 10
23		49. 56. 18			
23	α Aquilæ.	58. 30. 14	59. 58. 17	61. 26. 37	62. 55. 14
24		70. 21. 6	71. 50. 37	73. 20. 10	74. 49. 44
25		82. 17. 15	83. 46. 34	85. 15. 46	86. 44. 51
26	Fomal- haut.	60. 37. 11	62. 7. 17	63. 37. 27	65. 7. 39
27		72. 38. 30	74. 8. 32	75. 38. 29	77. 8. 21

XI. MAY 1775. [59]

Distances of ♃'s Center from ☉, and from Stars west of her.

Days.	Stars Names.	12 Hours.	15 Hours.	18 Hours.	21 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
2	The Sun.		39. 7. 23	40. 31. 40	41. 56. 2
3		48. 54. 26	50. 17. 35	51. 40. 35	53. 3. 25
4		59. 55. 32	61. 17. 34	62. 39. 29	64. 1. 18
5		70. 49. 5	72. 10. 26	73. 31. 45	74. 53. 2
6		81. 39. 8	83. 0. 22	84. 21. 39	85. 42. 58
7		92. 30. 25	93. 52. 9	95. 14. 0	96. 35. 58
8		103. 27. 48	104. 50. 37	106. 13. 38	107. 36. 50
9		114. 36. 1	116. 0. 32	117. 25. 17	118. 50. 16
7	Pollux.	30. 27. 23	31. 51. 34	33. 16. 16	34. 41. 25
8		41. 53. 16	43. 20. 45	44. 48. 32	46. 16. 39
9	Regulus.	16. 59. 50	18. 31. 54	20. 4. 15	21. 36. 52
10		29. 24. 12	30. 58. 33	32. 33. 13	34. 8. 12
11		42. 7. 59	43. 44. 58	45. 22. 18	46. 59. 59
12		55. 13. 36	56. 53. 22	58. 33. 30	60. 13. 58
13		68. 41. 37			
13	Spica ♏	16. 3. 45	17. 39. 38	19. 16. 52	20. 55. 18
14		29. 20. 2	31. 2. 50	32. 46. 6	34. 29. 47
15		43. 14. 0	44. 59. 48	46. 45. 52	48. 32. 10
16		57. 26. 50	59. 14. 19	61. 1. 55	62. 49. 39
17		71. 49. 31	73. 37. 39	75. 25. 50	77. 14. 2
18	Antares.	40. 56. 23	42. 41. 37	44. 27. 1	46. 12. 33
19		55. 1. 7	56. 46. 50	58. 32. 32	60. 18. 10
20		69. 5. 26	70. 50. 35	72. 35. 35	74. 20. 27
21	β Capri- corni.	29. 5. 32	30. 50. 41	32. 35. 40	34. 20. 30
22		43. 2. 9	44. 45. 58	46. 29. 35	48. 13. 1
23	α Aquilæ.	64. 24. 4	65. 53. 7	67. 22. 19	68. 51. 39
24		76. 19. 19	77. 48. 52	79. 18. 23	80. 47. 50
25		88. 13. 48			
25	Fomal- haut.	54. 38. 0	56. 7. 33	57. 37. 17	59. 7. 11
26		66. 37. 51	68. 8. 4	69. 38. 15	71. 8. 24
27		78. 38. 8			

JUPITER's Satellites will not be visible this Month,
JUPITER being too near the Sun.

Days of the Month.	Days of the Week.	Sundays, Holidays, &c.	Phases of the Moon.	
			D. H. M.	
1	Th.	Nicomede. Oxf. Term	First Quarter—	5. 23. 41
2	F.	[ends.	Full Moon —	13. 4. 49
3	Sa.		Last Quarter —	19. 19. 49
		[born.	New Moon —	27. 10. 4
4	Su.	Whit-Sunday. K. Geo. III.	D. Other Phenomena.	
5	M.	Whit-Mon. P. Ern. Au. b.	3. ♄ Stationary.	
6	Tu.	Whit-Tues. [Boniface.	4. ☿ ♄ diff. Lat. 16'.	
7	W.		☿ ♄ 4 ^h . 54'.	
8	Th.		☿ ♄ 9 ^h . 58'.	
9	F.		☿ ♄ 23 ^h . 13'.	
10	Sa.	Prs. Amelia born.	5. ☿ ♄ 15 ^h . 33'.	
			☿ ♄ 16 ^h . 37'.	
			☿ ♄ 23 ^h . 52'.	
11	Su.	Trinity-Su. St. Barnabas.	7. ☿ ♄ 8 ^h . 15'.	
12	M.	On mor. of H. Trin. 1 ret.	☿ ♄ 17 ^h . 37'.	
13	Tu.		11. ♄ ♄ diff. Lat. 3'.	
14	W.	Oxford Term begins.	☿ ♄ 2 ^h . 29'.	
15	Th.		☿ ♄ 6 ^h . 17'.	
16	F.	Trinity Term begins.	☿ ♄ 11 ^h . 24'.	
17	Sa.	S. Alban.	12. ☿ ♄ Serpentar. 1 ^h . 15'.	
18	Su.	1st Sunday after Trinity.	13. ☿ ♄ diff. Lat. 48'.	
19	M.	In 8 days of H. Tr. 2 ret.	18. ☿ ♄ 8 ^h . 59'.	
20	Tu.	Tr. of Ed. K. of W. S.	☿ ♄ 18 ^h . 27'.	
21	W.		21. ☉ enters ♄ at 4 ^h . 54'.	
22	Th.		22. ☿ ♄ ad ♄ Ceti 11 ^h . 52'.	
23	F.		☿ ♄ Ceti 20 ^h . 5'.	
24	Sa.	Nativ. of St. John Bapt.	24. ☿ ♄ 17 ^h . 8'.	
			☿ ♄ ad ♄ 19 ^h . 11'.	
			☿ ♄ ad ♄ 19 ^h . 40'.	
25	Su.	2d Sunday after Trinity.	25. ☿ ♄ 0 ^h . 47'.	
26	M.	In 15 days of H. Tr. 3 ret.	29. ☿ ♄ diff. Lat. 9'.	
27	Tu.			
28	W.			
29	Th.	St. Peter.		
30	F.			

Day of the Month.	Day of the Week.	Sun's Longitude.	Sun's Right Asc. in Time.	Sun's Declin. North.	Equat. of Time Sub.	Diff.
		S. D. M. S.	H. M. S.	D. M. S.	M. S.	S.
1	Th.	2. 10. 42. 12	4. 36. 25, 9	22. 4. 34	2. 40, 6	9, 2
2	F.	2. 11. 39. 39	4. 40. 31, 7	22. 12. 33	2. 31, 4	9, 5
3	Sa.	2. 12. 37. 5	4. 44. 37, 8	22. 20. 7	2. 21, 9	9, 9
4	Su.	2. 13. 34. 29	4. 48. 44, 2	22. 27. 18	2. 12, 0	10, 1
5	M.	2. 14. 31. 53	4. 52. 50, 9	22. 34. 6	2. 1, 9	10, 5
6	Tu.	2. 15. 29. 15	4. 56. 58, 0	22. 40. 30	1. 51, 4	10, 8
7	W.	2. 16. 26. 37	5. 1. 5, 4	22. 46. 31	1. 40, 6	11, 0
8	Th.	2. 17. 23. 57	5. 5. 13, 0	22. 52. 7	1. 29, 6	11, 3
9	F.	2. 18. 21. 16	5. 9. 20, 9	22. 57. 19	1. 18, 3	11, 6
10	Sa.	2. 19. 18. 34	5. 13. 29, 0	23. 2. 7	1. 6, 7	11, 8
11	Su.	2. 20. 15. 52	5. 17. 37, 4	23. 6. 31	0. 54, 9	11, 9
12	M.	2. 21. 13. 8	5. 21. 45, 9	23. 10. 30	0. 43, 0	12, 1
13	Tu.	2. 22. 10. 24	5. 25. 54, 6	23. 14. 6	0. 30, 9	12, 3
14	W.	2. 23. 7. 39	5. 30. 3, 5	23. 17. 16	0. 18, 6	12, 5
15	Th.	2. 24. 4. 54	5. 34. 12, 6	23. 20. 2	0. 6, 1	12, 6
16	F.	2. 25. 2. 9	5. 38. 21, 8	23. 22. 23	Ad: 6, 5	12, 7
17	Sa.	2. 25. 59. 23	5. 42. 31, 1	23. 24. 20	0. 19, 2	12, 9
18	Su.	2. 26. 56. 38	5. 46. 40, 5	23. 25. 52	0. 32, 1	12, 9
19	M.	2. 27. 53. 52	5. 50. 50, 0	23. 26. 59	0. 45, 0	12, 9
20	Tu.	2. 28. 51. 6	5. 54. 59, 5	23. 27. 41	0. 57, 9	13, 0
21	W.	2. 29. 48. 20	5. 59. 9, 1	23. 27. 58	1. 10, 9	13, 0
22	Th.	3. 0. 45. 34	6. 3. 18, 7	23. 27. 51	1. 23, 9	12, 9
23	F.	3. 1. 42. 48	6. 7. 28, 2	23. 27. 19	1. 36, 8	12, 9
24	Sa.	3. 2. 40. 2	6. 11. 37, 8	23. 26. 22	1. 49, 7	12, 9
25	Su.	3. 3. 37. 16	6. 15. 47, 2	23. 25. 0	2. 2, 6	12, 8
26	M.	3. 4. 34. 30	6. 19. 56, 5	23. 23. 14	2. 15, 4	12, 6
27	Tu.	3. 5. 31. 44	6. 24. 5, 7	23. 21. 3	2. 28, 0	12, 5
28	W.	3. 6. 28. 58	6. 28. 14, 8	23. 18. 26	2. 40, 5	12, 3
29	Th.	3. 7. 26. 12	6. 32. 23, 7	23. 15. 26	2. 52, 8	12, 1
30	F.	3. 8. 23. 27	6. 36. 32, 4	23. 12. 13	3. 4, 9	11, 8

III. JUNE 1775. [63]

Days of the Month.	Semidia- meter of the Sun.	Time of D ^o passing the Meridian.	Hourly Motion of the Sun.	Logarithm of the Sun's Distance.	Place of the Moon's Node.
	M. S.	M. S.	M. S.		S. D. M.
1	15. 48, 8	1. 8, 3	2. 23, 6	0. 006358	4. 28. 44
7	15. 48, 1	1. 8, 6	2. 23, 3	0. 006658	4. 28. 25
13	15. 47, 5	1. 8, 7	2. 23, 2	0. 006896	4. 28. 6
19	15. 47, 2	1. 8, 8	2. 23, 1	0. 007090	4. 27. 47
25	15. 47, 0	1. 8, 8	2. 23, 0	0. 007215	4. 27. 28

Eclipses of the SATELLITES of J U P I T E R.

I. Satellite. Immerfions.		II. Satellite. Immerfions.		III. Satellite.	
Days	H. M. S.	Days	H. M. S.	Days	H. M. S.
15	12. 40. 9	16	13. 0. 50	13	6. 9. 42 J.
17	7. 8. 24	20	2. 17. 21	13	7. 58. 32 E.
19	1. 36. 42	23	15. 33. 44	20	10. 8. 18 I.
20	20. 4. 58	27	4. 50. 8	20	11. 58. 14 E.
22	14. 33. 14	30	18. 6. 40	27	14. 6. 46 I.
24	9. 1. 30			27	15. 57. 54 E.
26	3. 29. 46			IV. Satellite. Conj.	
27	21. 58. 2			18	13. 13. 19 Sup.
29	16. 26. 17			26	20. 56. 36 Inf.

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J U N E 1775.

IV.

Days.	Heliocen- tric Lon- gitude.	Heliocen- tric Lat- itude.	Geocen- tric Lon- gitude.	Geocen- tric La- titude.	Declina- tion.	Passage over Merid.
	S. D. M.	D. M.	S. D. M.	D. M.	D. M.	H. M.

M E R C U R Y.

1	2. 27. 19	4. 38 N	2. 14. 33	1. 6 N	23. 40 N	0. 17
7	4. 3. 25	6. 50	2. 27. 19	1. 46	25. 12	0. 47
13	5. 4. 28	6. 38	3. 8. 58	2. 1	25. 10	1. 14
19	6. 0. 5	5. 1	3. 19. 14	1. 50	23. 54	1. 34
25	6. 21. 35	2. 53	3. 28. 4	1. 15	21. 48	1. 46

V E N U S.

1	5. 9. 40	3. 23 N	3. 15. 38	1. 56 N	24. 28 N	2. 33
7	5. 19. 25	3. 23	3. 22. 42	2. 0	23. 32	2. 39
13	5. 29. 8	3. 17	3. 29. 43	2. 1	22. 12	2. 44
19	6. 8. 50	3. 5	4. 6. 40	1. 58	20. 32	2. 48
25	6. 18. 31	2. 49	4. 13. 34	1. 52	18. 33	2. 51

M A R S.

1	6. 18. 48	0. 55 N	5. 9. 49	1. 9 N	8. 58 N	6. 10
7	6. 21. 36	0. 50	5. 12. 32	1. 1	7. 48	5. 56
13	6. 24. 26	0. 45	5. 15. 22	0. 53	6. 35	5. 41
19	6. 27. 16	0. 40	5. 18. 20	0. 45	5. 19	5. 27
25	7. 0. 8	0. 34	5. 21. 25	0. 38	3. 59	5. 13

J U P I T E R.

1	1. 29. 53	0. 50 S	2. 1. 42	0. 41 S	19. 51 N	23. 19
7	2. 0. 25	0. 49	2. 3. 6	0. 41	20. 8	23. 1
13	2. 0. 57	0. 48	2. 4. 28	0. 41	20. 24	22. 41
19	2. 1. 29	0. 48	2. 5. 50	0. 40	20. 39	22. 22
25	2. 2. 1	0. 47	2. 7. 10	0. 40	20. 52	22. 3

S A T U R N. $\square$ 23^d. 19^h.

1	6. 7. 48	2. 26 N	6. 2. 8	2. 33 N	1. 30 N	7. 34
7	6. 7. 59	2. 26	6. 2. 8	2. 31	1. 28	7. 10
13	6. 8. 11	2. 26	6. 2. 12	2. 30	1. 25	6. 45
19	6. 8. 23	2. 26	6. 2. 19	2. 28	1. 21	6. 21
25	6. 8. 35	2. 26	6. 2. 29	2. 27	1. 15	5. 57

V. JUNE 1775. [65]

Days of the Month.	Days of the Week.	Moon's Longitude at Noon.	Moon's Longitude at Midnight.	Moon's Latitude at Noon.	Moon's Latitude at Midn.
		S. D. M. S.	S. D. M. S.	D. M. S.	D. M. S.
1	Th.	3. 16. 16. 19	3. 22. 14. 37	3. 20. 17 S	2. 55. 38 S
2	F.	3. 28. 11. 6	4. 4. 6. 11	2. 29. 8	2. 1. 4
3	Sa.	4. 10. 0. 14	4. 15. 53. 56	1. 31. 47	1. 1. 31 S
4	Su.	4. 21. 47. 50	4. 27. 42. 33	0. 30. 31 S	0. 0. 55 N
5	M.	5. 3. 38. 39	5. 9. 36. 56	0. 32. 27 N	1. 3. 51
6	Tu.	5. 15. 38. 4	5. 21. 42. 38	1. 34. 47	2. 4. 57
7	W.	5. 27. 51. 22	6. 4. 4. 55	2. 33. 59	3. 1. 35
8	Th.	6. 10. 23. 51	6. 16. 48. 40	3. 27. 21	3. 50. 54
9	F.	6. 23. 19. 47	6. 29. 57. 36	4. 11. 51	4. 29. 45
10	Sa.	7. 6. 42. 15	7. 13. 33. 49	4. 44. 15	4. 54. 54
11	Su.	7. 20. 32. 7	7. 27. 36. 54	5. 1. 22	5. 3. 22
12	M.	8. 4. 47. 35	8. 12. 3. 35	5. 0. 38	4. 53. 2
13	Tu.	8. 19. 24. 1	8. 26. 47. 50	4. 40. 33	4. 23. 15
14	W.	9. 4. 14. 5	9. 11. 41. 32	4. 1. 23	3. 35. 20
15	Th.	9. 19. 9. 10	9. 26. 35. 52	3. 5. 33	2. 32. 38
16	F.	10. 4. 0. 46	10. 11. 23. 1	1. 57. 10	1. 19. 55
17	Sa.	10. 18. 41. 49	10. 25. 56. 51	0. 41. 37 N	0. 2. 56 N
18	Su.	11. 3. 7. 36	11. 10. 13. 53	0. 35. 28 S	1. 12. 57 S
19	M.	11. 17. 15. 34	11. 24. 12. 37	1. 48. 55	2. 22. 52
20	Tu.	0. 1. 5. 12	0. 7. 53. 17	2. 54. 24	3. 23. 4
21	W.	0. 14. 37. 10	0. 21. 16. 50	3. 48. 37	4. 10. 43
22	Th.	0. 27. 52. 37	1. 4. 24. 41	4. 29. 19	4. 44. 11
23	F.	1. 10. 53. 10	1. 17. 18. 21	4. 55. 13	5. 2. 24
24	Sa.	1. 23. 40. 9	1. 29. 58. 56	5. 5. 50	5. 5. 27
25	Su.	2. 6. 14. 46	2. 12. 27. 47	5. 1. 24	4. 53. 46
26	M.	2. 18. 38. 5	2. 24. 45. 50	4. 42. 46	4. 28. 30
27	Tu.	3. 0. 51. 5	3. 6. 54. 7	4. 11. 19	3. 51. 24
28	W.	3. 12. 54. 56	3. 18. 53. 55	3. 28. 50	3. 4. 7
29	Th.	3. 24. 51. 5	4. 0. 46. 49	2. 37. 32	2. 9. 12
30	F.	4. 6. 41. 23	4. 12. 35. 10	1. 39. 37	1. 8. 57

Days of the Month.	Days of the Week.	D's Age.	D's Pass- age over Merid.	D's Right Ascen. at Noon.	D's Right Asc. at Midn.	D's De- clin. at Noon.	D's De- clin. at Midn.
			H. M.	D. M.	D. M.	D. M.	D. M.
1	Th.	5	2. 38	107. 14	113. 32	19. 9 N	18. 44 N
2	F.	6	3. 25	119. 46	125. 56	18. 7	17. 18
3	Sa.	7	4. 11	132. 2	138. 3	16. 17	15. 7
4	Su.	8	4. 56	144. 0	149. 54	13. 47	12. 18
5	M.	9	5. 40	155. 46	161. 36	10. 41	8. 58
6	Tu.	10	6. 24	167. 24	173. 13	7. 8	5. 12
7	W.	11	7. 8	179. 3	184. 57	3. 12 N	1. 9 N
8	Th.	12	7. 53	190. 55	196. 58	0. 56 S	3. 3 S
9	F.	13	8. 40	203. 9	209. 28	5. 10	7. 15
10	Sa.	14	9. 30	215. 56	222. 36	9. 17	11. 14
11	Su.	15	10. 23	229. 28	236. 31	13. 3	14. 43
12	M.	16	11. 20	243. 47	251. 14	16. 11	17. 25
13	Tu.	17	12. 19	258. 52	266. 37	18. 23	19. 2
14	W.	18	13. 21	274. 29	282. 23	19. 22	19. 23
15	Th.	19	14. 22	290. 17	298. 7	19. 2	18. 22
16	F.	20	15. 21	305. 52	313. 28	17. 22	16. 6
17	Sa.	21	16. 17	320. 55	328. 11	14. 35	12. 50
18	Su.	22	17. 11	335. 17	342. 13	10. 55	8. 52
19	M.	23	18. 2	349. 0	355. 38	6. 43	4. 29 S
20	Tu.	24	18. 50	2. 9	8. 35	2. 14 S	0. 1 N
21	W.	25	19. 38	14. 56	21. 14	2. 15 N	4. 26
22	Th.	26	20. 26	27. 30	33. 45	6. 32	8. 32
23	F.	27	21. 13	40. 1	46. 17	10. 26	12. 11
24	Sa.	28	22. 1	52. 35	58. 55	13. 46	15. 11
25	Su.	29	22. 50	65. 16	71. 39	16. 25	17. 28
26	M.	30	23. 39	78. 4	84. 29	18. 17	18. 53
27	Tu.	1	0	90. 54	97. 18	19. 16	19. 26
28	W.	2	0. 27	103. 41	110. 1	19. 22	19. 6
29	Th.	3	1. 15	116. 18	122. 31	18. 36	17. 54
30	F.	4	2. 2	128. 39	134. 43	17. 1	15. 57

VII.

JUNE 1775.

[67]

Days of the Month.	Days of the Week.	Semidr. γ at Noon.	Semidr. γ at Mid. night.	Hor. Par. γ at Noon.	Hor. Par. γ at Midnight.	Prop. Lo- gar. at Noon.	Prop. Lo- gar. at Midn.
		M. S.	M. S.	M. S.	M. S.		
1	Th.	14. 51	14. 49	54. 31	54. 24	5187	5197
2	F.	14. 48	14. 47	54. 20	54. 17	5202	5206
3	Sa.	14. 47	14. 48	54. 16	54. 17	5207	5206
4	Su.	14. 49	14. 50	54. 21	54. 27	5201	5193
5	M.	14. 53	14. 56	54. 36	54. 48	5181	5165
6	Tu.	15. 0	15. 4	55. 2	55. 18	5146	5125
7	W.	15. 9	15. 15	55. 37	55. 58	5100	5073
8	Th.	15. 21	15. 28	56. 21	56. 45	5044	5013
9	F.	15. 35	15. 42	57. 11	57. 38	4980	4946
10	Sa.	15. 50	15. 57	58. 6	58. 33	4911	4877
11	Su.	16. 4	16. 11	58. 59	59. 23	4845	4816
12	M.	15. 17	16. 23	59. 46	60. 6	4788	4764
13	Tu.	16. 27	16. 31	60. 23	60. 36	4743	4728
14	W.	16. 33	16. 35	60. 45	60. 50	4717	4711
15	Th.	16. 35	16. 34	60. 52	60. 49	4709	4712
16	F.	16. 32	16. 29	60. 42	60. 32	4721	4733
17	Sa.	16. 26	16. 22	60. 19	60. 4	4748	4766
18	Su.	16. 17	16. 12	59. 46	59. 27	4788	4811
19	M.	16. 7	16. 1	59. 7	58. 47	4835	4860
20	Tu.	15. 55	15. 49	58. 26	58. 5	4886	4912
21	W.	15. 44	15. 38	57. 44	57. 24	4938	4964
22	Th.	15. 33	15. 28	57. 5	56. 47	4987	5010
23	F.	15. 23	15. 19	56. 29	56. 11	5033	5056
24	Sa.	15. 14	15. 11	55. 56	55. 41	5076	5095
25	Su.	15. 7	15. 3	55. 28	55. 15	5112	5129
26	M.	15. 0	14. 57	55. 3	54. 51	5145	5161
27	Tu.	14. 54	14. 52	54. 42	54. 33	5173	5185
28	W.	14. 50	14. 48	54. 26	54. 19	5194	5203
29	Th.	14. 47	14. 46	54. 14	54. 10	5210	5215
30	F.	14. 45	14. 45	54. 7	54. 6	5219	5221

Distances of γ 's Center from Stars, and from $\odot$ east of her.

Days.	Stars Names.	Noon.	3 Hours.	6 Hours.	9 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1	Regulus.	40. 35. 25	39. 5. 37	37. 35. 55	36. 6. 20
2		28. 39. 50	27. 10. 47	25. 41. 47	24. 12. 52
3		16. 49. 2	15. 20. 22	13. 51. 42	12. 23. 3
4	Spica α	58. 54. 54	57. 26. 41	55. 58. 25	54. 30. 6
5		47. 7. 42	45. 38. 59	44. 10. 11	42. 41. 17
6		35. 15. 20	33. 45. 53	32. 16. 21	30. 46. 44
7		23. 18. 24	21. 49. 0	20. 19. 50	18. 50. 59
8	Antares.	56. 45. 4	55. 11. 21	53. 37. 21	52. 3. 6
9		44. 7. 58	42. 32. 14	40. 56. 17	39. 20. 9
10		31. 18. 4			
10	α Aquilæ.	80. 37. 42	79. 7. 5	77. 36. 13	76. 5. 7
11		68. 27. 13	66. 55. 21	65. 23. 29	63. 51. 38
12		56. 14. 48	54. 44. 21	53. 14. 22	51. 44. 54
13	β Capri- corni.	41. 22. 14	39. 32. 4	37. 41. 44	35. 51. 13
14		26. 36. 29	24. 45. 20	22. 54. 9	21. 3. 1
15	α Pegasi.	61. 51. 49	60. 10. 4	58. 28. 45	56. 47. 54
16		48. 32. 43	46. 56. 0	45. 20. 16	43. 45. 37
17		36. 13. 11			
17	α Arietis.	75. 54. 58	74. 9. 15	72. 23. 49	70. 38. 43
18		61. 58. 41	60. 15. 52	58. 33. 30	56. 51. 37
19		48. 29. 49	46. 51. 12	45. 13. 13	43. 35. 56
20		35. 41. 36			
18	The Sun.	113. 48. 57	112. 9. 4	110. 29. 28	108. 50. 10
19		100. 37. 58	99. 0. 26	97. 23. 12	95. 46. 17
20		87. 46. 5	86. 10. 57	84. 36. 7	83. 1. 35
21		75. 13. 11	73. 40. 23	72. 7. 51	70. 35. 36
22		62. 58. 21	61. 27. 41	59. 57. 15	58. 27. 6
23		50. 59. 57	49. 31. 12	48. 2. 42	46. 34. 25
24		39. 16. 38			
29	Spica α	85. 46. 16	84. 17. 34	82. 48. 56	81. 20. 22
30		73. 58. 31	72. 30. 18	71. 2. 7	69. 33. 59
J. 1		62. 13. 50			

Distances of γ 's Center from Stars, and from $\odot$ east of her.

Days.	Stars Names.	12 Hours.	15 Hours.	18 Hours.	21 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1	Regulus.	34. 36. 51	33. 7. 28	31. 38. 10	30. 8. 57
2		22. 44. 0	21. 15. 12	19. 46. 26	18. 17. 43
3		10. 54. 23			
3	Spica μ	64. 47. 33	63. 19. 25	61. 51. 16	60. 23. 6
4		53. 1. 45	51. 33. 21	50. 4. 52	48. 36. 19
5		41. 12. 18	39. 43. 13	38. 14. 1	36. 44. 43
6		29. 17. 4	27. 47. 21	26. 17. 39	24. 47. 58
7		17. 22. 34			
7	Antares.	62. 57. 13	61. 24. 36	59. 51. 42	58. 18. 31
8		50. 28. 35	48. 53. 48	47. 18. 46	45. 43. 29
9		37. 43. 52	36. 7. 29	34. 31. 2	32. 54. 33
10	α Aquilæ.	74. 33. 49	73. 2. 21	71. 30. 45	69. 59. 2
11		62. 19. 53	60. 48. 16	59. 16. 50	57. 45. 39
12		50. 16. 0			
12	β Capri- corni.	48. 40. 33	46. 51. 21	45. 1. 53	43. 12. 11
13		34. 0. 31	32. 9. 39	30. 18. 41	28. 27. 37
14		19. 11. 55			
14	α Pegasi.	68. 41. 57	66. 59. 3	65. 16. 21	63. 33. 55
15		55. 7. 34	53. 27. 49	51. 48. 42	50. 10. 18
16		42. 12. 10	40. 40. 3	39. 9. 25	37. 40. 25
17	α Arietis.	68. 53. 58	67. 9. 34	65. 25. 32	63. 41. 55
18		55. 10. 12	53. 29. 17	51. 48. 54	50. 9. 4
19		41. 59. 23	40. 23. 38	38. 48. 44	37. 14. 42
17	The Sun.	120. 31. 10	118. 50. 13	117. 9. 31	115. 29. 6
18		107. 11. 8	105. 32. 24	103. 53. 57	102. 15. 49
19		94. 9. 39	92. 33. 18	90. 57. 16	89. 21. 31
20		81. 27. 20	79. 53. 22	78. 19. 41	76. 46. 17
21		69. 3. 37	67. 31. 54	66. 0. 27	64. 29. 16
22		56. 57. 11	55. 27. 31	53. 58. 5	52. 28. 54
23		45. 6. 23	43. 38. 35	42. 11. 2	40. 43. 43
29	Spica μ	79. 51. 53	78. 23. 27	76. 55. 5	75. 26. 46
30		68. 5. 53	66. 37. 50	65. 9. 48	63. 41. 48

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JUNE 1775.

X.

Distances of γ 's Center from $\odot$, and from Stars west of her.

Days	Stars Names.	Noon.	3 Hours.	6 Hours.	9 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1	The Sun.				39. 47. 17
2		46. 34. 31	47. 55. 49	49. 17. 4	50. 38. 18
3		57. 23. 56	58. 45. 2	60. 6. 9	61. 27. 17
4		68. 13. 24	69. 34. 47	70. 56. 14	72. 17. 46
5		79. 6. 48	80. 28. 58	81. 51. 18	83. 13. 47
6		90. 8. 49	91. 32. 23	92. 56. 11	94. 20. 13
7		101. 24. 3	102. 49. 37	104. 15. 30	105. 41. 40
8		112. 57. 15	114. 25. 20	115. 53. 48	117. 22. 38
6	Regulus.	18. 57. 30	20. 28. 32	21. 59. 48	23. 31. 18
7		31. 12. 32	32. 45. 36	34. 18. 58	35. 52. 38
8		43. 45. 47	45. 21. 25	46. 57. 25	48. 33. 47
9		56. 41. 12	58. 19. 51	59. 58. 55	61. 38. 23
10	Spica α	70. 1. 51			
10		17. 21. 24	18. 57. 17	20. 34. 26	22. 12. 43
11		30. 37. 15	32. 20. 15	34. 3. 51	35. 47. 59
12		44. 35. 58	46. 22. 54	48. 10. 12	49. 57. 53
13	Antares.	59. 1. 19	60. 50. 52	62. 40. 38	64. 30. 38
14		73. 43. 34			
14		28. 52. 30	30. 37. 48	32. 23. 48	34. 10. 26
15		43. 9. 55	44. 58. 38	46. 47. 30	48. 36. 29
16		57. 42. 0	59. 31. 3	61. 20. 0	63. 8. 51
17		72. 10. 56			
17	β Capri- corni.	18. 11. 16	19. 59. 58	21. 48. 31	23. 36. 54
18		32. 35. 57	34. 23. 3	36. 9. 53	37. 56. 27
19		46. 45. 1	48. 29. 51	50. 14. 23	51. 58. 37
20	α Aquilæ.	67. 48. 59	69. 18. 41	70. 48. 23	72. 18. 4
21		79. 45. 35	81. 14. 43	82. 43. 41	84. 12. 29
22		91. 33. 37			
22	α Pegasi.	43. 57. 51	45. 21. 47	46. 46. 9	48. 10. 57
23		55. 19. 45	56. 46. 11	58. 12. 45	59. 39. 25
24		66. 53. 40	68. 20. 35	69. 47. 28	71. 14. 20
25		78. 27. 51	79. 54. 19	81. 20. 42	82. 46. 59
26		89. 56. 40			

Distances of γ 's Center from $\odot$, and from Stars west of her.

Days.	Stars Names.	12 Hours.	15 Hours.	18 Hours.	21 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1	The Sun.	41. 8. 50	42. 30. 20	43. 51. 46	45. 13. 10
2		51. 59. 29	53. 20. 37	54. 41. 44	56. 2. 51
3		62. 48. 26	64. 9. 36	65. 30. 49	66. 52. 5
4		73. 39. 22	75. 1. 3	76. 22. 51	77. 44. 46
5		84. 36. 25	85. 59. 14	87. 22. 14	88. 45. 26
6		95. 44. 28	97. 8. 58	98. 33. 44	99. 58. 46
7		107. 8. 9	108. 34. 56	110. 2. 3	111. 29. 29
8		118. 51. 46	120. 21. 17		
6	Regulus.	25. 3. 2	26. 35. 0	28. 7. 15	29. 39. 45
7		37. 26. 37	39. 0. 55	40. 35. 32	42. 10. 30
8		50. 10. 30	51. 47. 36	53. 25. 5	55. 2. 57
9		63. 18. 15	64. 58. 31	66. 39. 13	68. 20. 19
10	Spica μ	23. 52. 1	25. 32. 11	27. 13. 9	28. 54. 52
11		37. 32. 38	39. 17. 47	41. 3. 25	42. 49. 29
12		51. 45. 56	53. 34. 20	55. 23. 1	57. 12. 1
13		66. 20. 52	68. 11. 17	70. 1. 53	71. 52. 39
14	Antares.	35. 57. 35	37. 45. 10	39. 33. 8	41. 21. 24
15		50. 25. 33	52. 14. 40	54. 3. 46	55. 52. 53
16		64. 57. 36	66. 46. 12	68. 34. 38	70. 22. 54
17	β Capri- corni.	25. 25. 8	27. 13. 10	29. 0. 59	30. 48. 35
18		39. 42. 45	41. 28. 45	43. 14. 28	44. 59. 53
19		53. 42. 33			
19	α Aquilæ.	61. 50. 46	63. 20. 12	64. 49. 43	66. 19. 19
20		73. 47. 44	75. 17. 21	76. 46. 51	78. 16. 16
21		85. 41. 7	87. 9. 33	88. 37. 47	90. 5. 49
22	α Pegasi.	49. 36. 7	51. 1. 38	52. 27. 25	53. 53. 28
23		61. 6. 13	62. 33. 2	63. 59. 52	65. 26. 45
24		72. 41. 10	74. 7. 56	75. 34. 39	77. 1. 17
25		84. 13. 9	85. 39. 13	87. 5. 9	88. 30. 59

JUPITER's Satellites will not be visible (in England)
this Month, JUPITER being too near the Sun.

Days of the Month.	Days of the Week.	Sundays, Holidays, &c.	Phases of the Moon.
			D. H. M.
			First Quarter — 5. 14. 18
			Full Moon — 12. 11. 56
			Last Quarter — 19. 3. 33
			New Moon — 27. 1. 3
1	Sa.	[B. V. Mary.	
2	Su.	3d Su. aft. Tr. Visit. of	Other Phenomena.
3	M.	In 3 weeks of H. Tr. 4 ret.	1. ☿ ♄ ☽ diff. Lat. 13'.
4	Tu.	Cam. Com. Tr. of S. M.	☿ ♄ ☽ 11h. 41'.
5	W.	Term ends.	☿ ♄ ☽ 16h. 47'.
6	Th.		2. ☿ ♄ ☽ 6h. 5'.
7	F.	Cambridge Term ends.	☿ ♄ ☽ 22h. 33'.
8	Sa.		3. ☿ ♄ ☽ 6h. 58'.
9	Su.	4th Sunday after Trinity.	4. ☿ ♄ ☽ 19h. 20'.
10	M.	Oxford Act.	5. ☿ ♄ ☽ 1h. 25'.
11	Tu.		6. ☿ ♄ ☽ diff. Lat. 61'.
12	W.		8. ☿ ♄ ☽ Imm. 12h. 23'.
13	Th.		* 9' N. of ☽'s cent.
14	F.	[ends.	Em. 13h. 17'. * 7'.
15	Sa.	Swithin. Oxford Term	N. of ☽'s cent.
16	Su.	5th Sunday after Trinity.	☿ ♄ ☽ 16h. 4'.
17	M.		☿ ♄ ☽ 21h. 17'.
18	Tu.		9. ☿ ♄ ☽ Serpent. 11h. 22'.
19	W.		15. ☿ ♄ ☽ 16h. 52'.
20	Th.	Margaret.	16. ☿ ♄ ☽ 2h. 1'.
21	F.	[Magdalen.	17. ☿ Stationary.
22	Sa.	Q. of Denmark born 1751.	19. ☿ 2 ad ☽ Ceti 17h. 28'.
23	Su.	6th Sunday after Trinity.	20. ☿ ♄ ☽ Ceti 1h. 36'.
24	M.		21. ☿ ♄ ☽ 22h. 38'.
25	Tu.	St. James.	22. ☿ 2 ad ☽ ☽ 1h. 11'.
26	W.	S. Anne.	☿ ♄ ☽ 6h. 20'.
27	Th.		☽ enters ☽ at 15h. 41'.
28	F.		24. ☿ ♄ ☽ 11h. 27'.
29	Sa.		26. ☿ ♄ ☽ diff. Lat. 51'.
30	Su.	7th Sunday after Trinity.	☿ ♄ ☽ diff. Lat. 36'.
31	M.		28. ☿ ♄ ☽ 22h. 53'.
			29. ☿ ♄ ☽ 12h. 12'.
			30. ☿ ♄ ☽ 4h. 41'.
			☿ ♄ ☽ 13h. 7'.
			31. ☿ ♄ ☽ diff. Lat. 52'.

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JULY 1775.

II.

Days of the Month.	Days of the Week.	Sun's Longitude.	Sun's Right Asc. in Time.	Sun's Declin. North.	Equat. of Time. Add.	Diff.
		S. D. M. S.	H. M. S.	D. M. S.	M. S.	S.
1	Sa.	3. 9. 20. 40	6. 40. 40, 8	23. 8. 12	3. 16, 7	11, 6
2	Su.	3. 10. 17. 53	6. 44. 49, 0	23. 3. 59	3. 28, 3	11, 3
3	M.	3. 11. 15. 6	6. 48. 56, 8	22. 59. 21	3. 39, 6	11, 0
4	Tu.	3. 12. 12. 19	6. 53. 4, 4	22. 54. 19	3. 50, 6	10, 6
5	W.	3. 13. 9. 32	6. 57. 11, 6	22. 48. 54	4. 1, 2	10, 3
6	Th.	3. 14. 6. 44	7. 1. 18, 5	22. 43. 4	4. 11, 5	9, 9
7	F.	3. 15. 3. 56	7. 5. 25, 0	22. 36. 51	4. 21, 4	9, 5
8	Sa.	3. 16. 1. 8	7. 9. 31, 1	22. 30. 15	4. 30, 9	9, 1
9	Su.	3. 16. 58. 20	7. 13. 36, 8	22. 23. 15	4. 40, 0	8, 7
10	M.	3. 17. 55. 32	7. 17. 42, 0	22. 15. 52	4. 48, 7	8, 2
11	Tu.	3. 18. 52. 44	7. 21. 46, 9	22. 8. 6	4. 56, 9	7, 8
12	W.	3. 19. 49. 56	7. 25. 51, 2	21. 59. 57	5. 4, 7	7, 4
13	Th.	3. 20. 47. 8	7. 29. 55, 1	21. 51. 26	5. 12, 1	6, 9
14	F.	3. 21. 44. 21	7. 33. 58, 6	21. 42. 32	5. 19, 0	6, 4
15	Sa.	3. 22. 41. 35	7. 38. 1, 6	21. 33. 16	5. 25, 4	5, 9
16	Su.	3. 23. 38. 49	7. 42. 4, 1	21. 23. 38	5. 31, 3	5, 4
17	M.	3. 24. 36. 3	7. 46. 6, 1	21. 13. 38	5. 36, 7	5, 0
18	Tu.	3. 25. 33. 19	7. 50. 7, 7	21. 3. 16	5. 41, 7	4, 5
19	W.	3. 26. 30. 36	7. 54. 8, 7	20. 52. 33	5. 46, 2	3, 9
20	Th.	3. 27. 27. 53	7. 58. 9, 2	20. 41. 29	5. 50, 1	3, 4
21	F.	3. 28. 25. 11	8. 2. 9, 1	20. 30. 3	5. 53, 5	2, 9
22	Sa.	3. 29. 22. 31	8. 6. 8, 5	20. 18. 17	5. 56, 4	2, 3
23	Su.	4. 0. 19. 51	8. 10. 7, 4	20. 6. 10	5. 58, 7	1, 7
24	M.	4. 1. 17. 12	8. 14. 5, 7	19. 53. 43	6. 0, 4	1, 2
25	Tu.	4. 2. 14. 35	8. 18. 3, 5	19. 40. 56	6. 1, 6	0, 6
26	W.	4. 3. 11. 58	8. 22. 0, 7	19. 27. 56	6. 2, 2	0, 0
27	Th.	4. 4. 9. 21	8. 25. 57, 2	19. 14. 24	6. 2, 2	0, 5
28	F.	4. 5. 6. 46	8. 29. 53, 2	19. 0. 39	6. 1, 7	1, 2
29	Sa.	4. 6. 4. 12	8. 33. 48, 6	18. 46. 34	6. 0, 5	1, 7
30	Su.	4. 7. 1. 38	8. 37. 43, 4	18. 32. 12	5. 58, 8	2, 4
31	M.	4. 7. 59. 5	8. 41. 37, 6	18. 17. 31	5. 56, 4	

III. JULY 1775. [75]

Days of the Month.	Semidia- meter of the Sun.	Time of D ^o passing the Meridian.	Hourly Motion of the Sun.	Logarithm of the Sun's Distance.	Place of the Moon's Node.
	M. S.	M. S.	M. S.		S. D. M.
1	15. 46, 9	1. 8, 6	2. 23, 0	0. 007249	4. 27. 9
7	15. 47, 0	1. 8, 4	2. 23, 0	0. 007189	4. 26. 50
13	15. 47, 2	1. 8, 0	2. 23, 1	0. 007067	4. 26. 31
19	15. 47, 6	1. 7, 6	2. 23, 2	0. 006893	4. 26. 12
25	15. 48, 2	1. 7, 1	2. 23, 4	0. 006654	4. 25. 53

Eclipses of the SATELLITES of J U P I T E R.

I. Satellite. Immerfions.		II. Satellite. Immerfions.		III. Satellite.	
Days	H. M. S.	Days	H. M. S.	Days	H. M. S.
1	10. 54. 36	4	7. 23. 11	4	18. 5. 23 I
3	5. 22. 53	7	20. 39. 50	4	19. 57. 39 E
4	23. 51. 9	11	9. 56. 34	11	22. 4. 3 I
6	18. 19. 28	14	23. 13. 25	11	23. 57. 29 E
8	12. 47. 48	18	12. 30. 22	19	2. 3. 3 I
10	7. 16. 8	22	1. 47. 25	19	3. 57. 37 E
12	1. 44. 28	25	15* 4. 37	26	6. 2. 24 I
13	20. 12. 49	29	4. 21. 57	26	7. 58. 12 E
15	14* 41. 13			IV. Satellite. Conjunctions.	
17	9. 9. 38				
19	3. 38. 5				
20	22. 6. 33				
22	16. 35. 0			5	7. 21. 8 Sup.
24	11. 3. 30			13	15. 2. 28 Inf.
26	5. 32. 2			22	1. 30. 20 Sup.
28	0. 0. 35			30	9. 10. 20 Inf.
29	18. 29. 9				
31	12. 57. 45				

[76] JULY 1775. IV.

Days.	Heliocen- tric Lon- gitude.	Heliocen- tric Lati- tude.	Geocen- tric Lon- gitude.	Geocen- tric Lati- tude.	Declina- tion.	Passage over Merid.
	S. D. M.	D. M.	S. D. M.	D. M.	D. M.	H. M.

MERCURY. Great. Elong. 3^d. Inf. 3^d. 6^b.

1	7. 10. 23	0. 40 N	4. 5. 21	0. 20 N	19. 17 N	1. 50
7	7. 27. 37	1. 26 S	4. 10. 51	0. 51 S	16. 43	1. 47
13	8. 14. 9	3. 20	4. 14. 11	2. 13	14. 28	1. 34
19	9. 0. 47	4. 57	4. 14. 52	3. 36	12. 57	1. 11
25	9. 18. 14	6. 12	4. 12. 39	4. 38	12. 35	0. 37

VENUS.

1	6. 28. 10	2. 27 N	4. 20. 25	1. 42 N	16. 19 N	2. 53
7	7. 7. 48	2. 2	4. 27. 11	1. 28	13. 50	2. 34
13	7. 17. 23	1. 33	5. 3. 52	1. 11	11. 12	2. 55
19	7. 26. 57	1. 2	5. 10. 26	0. 50	8. 26	2. 55
25	8. 6. 30	0. 29	5. 16. 54	0. 24	5. 34	2. 54

MARS.

1	7. 3. 2	0. 29 N	5. 24. 36	0. 31 N	2. 37 N	5. 0
7	7. 5. 57	0. 24	5. 27. 52	0. 24	1. 13 N	4. 47
13	7. 8. 53	0. 18	6. 1. 14	0. 18	0. 13 S	4. 35
19	7. 11. 51	0. 12	6. 4. 41	0. 12	1. 41	4. 23
25	7. 14. 51	0. 7	6. 8. 12	0. 6	3. 10	4. 12

JUPITER.

1	2. 2. 33	0. 47 S	2. 8. 29	0. 40 S	21. 5 N	21. 44
7	2. 3. 5	0. 46	2. 9. 46	0. 40	21. 17	21. 25
13	2. 3. 37	0. 45	2. 11. 1	0. 40	21. 28	21. 5
19	2. 4. 8	0. 45	2. 12. 14	0. 40	21. 38	20. 46
25	2. 4. 40	0. 44	2. 13. 23	0. 39	21. 47	20. 27

SATURN.

1	6. 8. 47	2. 26 N	6. 2. 44	2. 25 N	1. 8 N	5. 32
7	6. 8. 59	2. 27	6. 3. 1	2. 24	1. 0	5. 9
13	6. 9. 11	2. 27	6. 3. 23	2. 23	0. 51	4. 46
19	6. 9. 23	2. 27	6. 3. 46	2. 22	0. 40	4. 23
25	6. 9. 35	2. 27	6. 4. 13	2. 21	0. 28	4. 1

V. JULY 1775. [77]

Days of the Month.	Days of the Week.	Moon's Longitude at Noon.	Moon's Longitude at Midnight.	Moon's Latitude at Noon.	Moon's Latitude at Midn.
		S. D. M. S.	S. D. M. S.	D. M. S.	D. M. S.
1	Sa.	4. 18. 28. 27	4. 24. 21. 46	0. 37. 34 S	0. 5. 42 S
2	Su.	5. 0. 15. 29	5. 6. 10. 16	0. 26. 15 N	0. 58. 5 N
3	M.	5. 12. 6. 28	5. 18. 4. 49	1. 29. 27	2. 6. 0
4	Tu.	5. 24. 5. 50	6. 0. 10. 12	2. 29. 26	2. 57. 33
5	W.	6. 6. 18. 25	6. 12. 31. 14	3. 23. 52	3. 48. 8
6	Th.	6. 18. 49. 9	6. 25. 12. 46	4. 9. 57	4. 29. 5
7	F.	7. 1. 42. 32	7. 8. 19. 1	4. 45. 4	4. 57. 31
8	Sa.	7. 15. 2. 21	7. 21. 52. 47	5. 6. 9	5. 10. 36
9	Su.	7. 28. 50. 24	8. 5. 55. 9	5. 10. 36	5. 5. 54
10	M.	8. 13. 6. 36	8. 20. 24. 16	4. 56. 21	4. 41. 54
11	Tu.	8. 27. 47. 31	9. 5. 15. 27	4. 22. 35	3. 58. 34
12	W.	9. 12. 46. 58	9. 20. 20. 56	3. 30. 15	2. 58. 4
13	Th.	9. 27. 56. 6	10. 5. 31. 11	2. 22. 36	1. 44. 38
14	F.	10. 13. 5. 7	10. 20. 36. 37	1. 4. 52 N	0. 24. 4 N
15	Sa.	10. 28. 4. 39	11. 5. 28. 32	0. 16. 49 S	0. 57. 4 S
16	Su.	11. 12. 47. 24	11. 20. 0. 57	1. 35. 57	2. 12. 51
17	M.	11. 27. 8. 45	0. 4. 10. 43	2. 47. 12	3. 18. 31
18	Tu.	0. 11. 6. 39	0. 17. 56. 49	3. 46. 28	4. 10. 46
19	W.	0. 24. 41. 8	1. 1. 20. 3	4. 31. 16	4. 47. 48
20	Th.	1. 7. 53. 45	1. 14. 22. 31	5. 0. 19	5. 8. 50
21	F.	1. 20. 46. 40	1. 27. 6. 38	5. 13. 21	5. 14. 2
22	Sa.	2. 3. 22. 41	2. 9. 35. 15	5. 10. 54	5. 4. 9
23	Su.	2. 15. 44. 33	2. 21. 51. 1	4. 53. 55	4. 40. 24
24	M.	2. 27. 54. 55	3. 3. 56. 35	4. 23. 51	4. 4. 22
25	Tu.	3. 9. 56. 18	3. 15. 54. 17	3. 42. 21	3. 17. 58
26	W.	3. 21. 50. 56	3. 27. 46. 19	2. 51. 30	2. 23. 12
27	Th.	4. 3. 40. 49	4. 9. 34. 44	1. 53. 28	1. 22. 31
28	F.	4. 15. 28. 16	4. 21. 21. 44	0. 50. 42 S	0. 18. 20 S
29	Sa.	4. 27. 15. 23	5. 3. 9. 33	0. 14. 19 N	0. 46. 47 N
30	Su.	5. 9. 4. 43	5. 15. 1. 5	1. 18. 56	1. 50. 19
31	M.	5. 20. 59. 10	5. 26. 59. 23	2. 20. 39	2. 49. 41

[78]		JULY 1775.				VI.	
Days of the Month.	Days of the Week.	D's Age.	D's False age over Merid.	D's Right Ascen. at Noon.	D's Right Ascen. at Midn.	D's Declinat. at Noon.	D's Declination at Midn.
			H. M.	D. M.	D. M.	D. M.	D. M.
1	Sa.	5	2. 47	140. 43	146. 38	14. 43 N	13. 20 N
2	Su.	6	3. 31	152. 30	158. 19	11. 48	10. 9
3	M.	7	4. 15	164. 5	169. 50	8. 24	6. 33
4	Tu.	8	4. 58	175. 34	181. 20	4. 38	2. 39 N
5	W.	9	5. 42	187. 8	193. 0	0. 37 N	1. 27 S
6	Th.	10	6. 26	198. 57	205. 0	3. 31 S	5. 35
7	F.	11	7. 14	211. 12	217. 33	7. 37	9. 36
8	Sa.	12	8. 4	224. 6	230. 50	11. 29	13. 15
9	Su.	13	8. 58	237. 47	244. 57	14. 52	16. 18
10	M.	14	9. 55	252. 20	259. 55	17. 30	18. 26
11	Tu.	15	10. 56	267. 40	275. 34	19. 4	19. 23
12	W.	16	11. 58	283. 32	291. 33	19. 22	18. 59
13	Th.	17	13. 0	299. 32	307. 26	18. 16	17. 13
14	F.	18	14. 0	315. 14	322. 53	15. 52	14. 15
15	Sa.	19	14. 57	330. 21	337. 39	12. 25	10. 24
16	Su.	20	15. 51	344. 46	351. 42	8. 15	6. 0
17	M.	21	16. 42	358. 29	5. 9	3. 42 S	1. 22 S
18	Tu.	22	17. 31	11. 41	18. 9	0. 56 N	3. 11 N
19	W.	23	18. 19	24. 32	30. 52	5. 22	7. 27
20	Th.	24	19. 7	37. 10	43. 28	9. 25	11. 15
21	F.	25	19. 55	49. 45	56. 3	12. 56	14. 26
22	Sa.	26	20. 44	62. 22	68. 43	15. 46	16. 54
23	Su.	27	21. 32	75. 4	81. 26	17. 50	18. 33
24	M.	28	22. 21	87. 48	94. 10	19. 3	19. 20
25	Tu.	29	23. 9	100. 31	106. 51	19. 24	19. 14
26	W.	30	23. 56	113. 8	119. 22	18. 52	18. 17
27	Th.	1	0	125. 32	131. 38	17. 31	16. 33
28	F.	2	0. 42	137. 41	143. 39	15. 24	14. 6
29	Sa.	3	1. 27	149. 33	155. 23	12. 40	11. 5
30	Su.	4	2. 11	161. 11	166. 56	9. 24	7. 36
31	M.	5	2. 54	172. 39	178. 22	5. 44	3. 48

VII.

JULY 1775.

[79]

Days of the Month.	Days of the Week.	Semid. at Noon.	Semid. at Mid-night.	Hor. Par. at Noon.	Hor. Par. at Midnight.	Propor. Lo. at Noon.	Propor. Lo. at Midn.
		M. S.	M. S.	M. S.	M. S.		
1	Sa.	14. 45	14. 46	54. 7	54. 10	5219	5215
2	Su.	14. 47	14. 49	54. 15	54. 22	5209	5199
3	M.	14. 51	14. 54	54. 31	54. 42	5187	5173
4	Th.	14. 58	15. 2	54. 56	55. 12	5154	5133
5	W.	15. 7	15. 13	55. 31	55. 51	5108	5082
6	Th.	15. 19	15. 26	56. 14	56. 39	5053	5021
7	F.	15. 33	15. 41	57. 6	57. 34	4986	4951
8	Sa.	15. 49	15. 57	58. 2	58. 31	4916	4880
9	Su.	16. 5	16. 12	59. 0	59. 28	4844	4810
10	M.	16. 19	16. 26	59. 55	60. 19	4777	4748
11	Tu.	16. 32	16. 37	60. 41	60. 58	4722	4702
12	W.	16. 40	16. 43	61. 12	61. 21	4685	4675
13	Th.	16. 44	16. 44	61. 25	61. 24	4670	4671
14	F.	16. 42	16. 40	61. 19	61. 9	4677	4689
15	Sa.	16. 36	16. 31	60. 54	60. 37	4707	4727
16	Su.	16. 25	16. 19	60. 16	59. 53	4752	4779
17	M.	16. 12	16. 5	59. 28	59. 2	4810	4842
18	Tu.	15. 58	15. 51	58. 36	58. 9	4874	4907
19	W.	15. 44	15. 37	57. 43	57. 18	4940	4971
20	Th.	15. 30	15. 24	56. 55	56. 32	5000	5029
21	F.	15. 18	15. 13	56. 11	55. 51	5056	5082
22	Sa.	15. 8	15. 4	55. 33	55. 18	5106	5125
23	Su.	15. 0	14. 57	55. 3	54. 51	5145	5161
24	M.	14. 54	14. 51	54. 39	54. 30	5177	5189
25	Tu.	14. 49	14. 47	54. 22	54. 15	5199	5209
26	W.	14. 45	14. 45	54. 10	54. 6	5215	5221
27	Th.	14. 44	14. 43	54. 4	54. 2	5223	5226
28	F.	14. 43	14. 44	54. 2	54. 3	5226	5225
29	Sa.	14. 44	14. 46	54. 6	54. 10	5221	5215
30	Su.	14. 47	14. 49	54. 16	54. 23	5207	5198
31	M.	14. 51	14. 55	54. 32	54. 44	5186	5170

Distances of γ 's Center from Stars, and from $\odot$ east of her.

Days.	Stars Names.	Noon.	3 Hours.	6 Hours.	9 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1	α Spica π	62. 13. 50	60. 45. 51	59. 17. 52	57. 49. 55
2		50. 30. 8	49. 2. 7	47. 34. 4	46. 6. 1
3		38. 45. 19	37. 17. 5	35. 48. 50	34. 20. 32
4		26. 59. 13	25. 31. 6	24. 3. 7	22. 35. 21
5		15. 23. 13			
5	α Antares.	60. 47. 33	59. 16. 30	57. 45. 14	56. 13. 45
6		48. 33. 8	47. 0. 21	45. 27. 23	43. 54. 14
7		36. 5. 59			
7	α Aquilæ.	84. 58. 39	83. 31. 10	82. 3. 24	80. 35. 20
8		73. 11. 22	71. 41. 58	70. 12. 24	68. 42. 43
9		61. 13. 21	59. 43. 32	58. 13. 51	56. 44. 23
10		49. 22. 39			
10	β Capri- corni.	47. 37. 49	45. 49. 31	44. 0. 49	42. 11. 45
11		33. 1. 11	31. 10. 7	29. 18. 49	27. 27. 18
12		18. 7. 14			
12	α Pegasi.	67. 42. 16	65. 58. 24	64. 14. 36	62. 30. 57
13		53. 57. 20	52. 15. 59	50. 35. 17	48. 55. 17
14		40. 49. 52	39. 16. 39	37. 45. 8	36. 15. 31
15	α Arietis.	66. 52. 21	65. 4. 58	63. 18. 1	61. 31. 30
16		52. 46. 27	51. 3. 7	49. 20. 29	47. 38. 33
17		39. 20. 33			
17	Aldeba- ran.	69. 20. 25	67. 34. 10	65. 48. 20	64. 2. 55
18		55. 21. 50	53. 38. 47	51. 56. 7	50. 13. 50
19		41. 48. 18	40. 8. 18	38. 28. 39	36. 49. 20
17	The Sun.	117. 25. 11	115. 46. 15	114. 7. 42	112. 29. 33
18		104. 24. 45	102. 48. 56	101. 13. 31	99. 38. 29
19		91. 49. 8	90. 16. 21	88. 43. 55	87. 11. 50
20		79. 36. 33	78. 6. 28	76. 36. 42	75. 7. 15
21		67. 44. 23	66. 16. 38	64. 49. 8	63. 21. 53
22		56. 9. 18	54. 43. 26	53. 17. 47	51. 52. 20
23		44. 48. 1	43. 23. 41	41. 59. 30	40. 35. 29
29	α Spica π	53. 29. 20	52. 1. 21	50. 33. 23	49. 5. 24
30		41. 45. 24	40. 17. 24	38. 49. 26	37. 21. 28
31		30. 2. 7	28. 34. 26	27. 6. 52	25. 39. 27
A.1		18. 26. 50			

IX. JULY 1775. [81]

Distances of γ 's Center from Stars, and from $\odot$ east of her.

Days.	Stars Names.	12 Hours.	15 Hours.	18 Hours.	21 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1	α Spica μ	56. 21. 58	54. 54. 1	53. 26. 4	51. 58. 6
2		44. 37. 55	43. 9. 49	41. 41. 40	40. 13. 30
3		32. 52. 14	31. 23. 56	29. 55. 40	28. 27. 25
4		21. 7. 51	19. 40. 43	18. 14. 6	16. 48. 13
5	α Antares.	54. 42. 3	53. 10. 8	51. 38. 1	50. 5. 41
6		42. 20. 53	40. 47. 23	39. 13. 43	37. 39. 55
7	α Aquilæ.	79. 7. 0	77. 38. 25	76. 9. 36	74. 40. 35
8		67. 12. 55	65. 43. 3	64. 13. 8	62. 43. 13
9		55. 15. 12	53. 46. 20	52. 17. 54	50. 49. 58
10	β Capri- corni.	40. 22. 18	38. 32. 30	36. 42. 22	34. 51. 56
11		25. 35. 33	23. 43. 39	21. 51. 37	19. 59. 28
12	α Pegasi.	60. 47. 31	59. 4. 23	57. 21. 36	55. 39. 14
13		47. 16. 6	45. 37. 50	44. 0. 37	42. 24. 34
14		34. 47. 59			
14	α Arietis.	74. 5. 16	72. 16. 35	70. 28. 11	68. 40. 6
15		59. 45. 26	57. 59. 51	56. 14. 50	54. 30. 22
16		45. 57. 18	44. 16. 51	42. 37. 13	40. 58. 26
17	Aldeba- ran.	62. 17. 54	60. 33. 17	58. 49. 4	57. 5. 15
18		48. 31. 57	46. 50. 29	45. 9. 23	43. 28. 39
19		35. 10. 22			
16	The Sun.	110. 51. 47	109. 14. 26	120. 44. 12	119. 4. 30
17		98. 3. 50	96. 29. 36	107. 37. 29	106. 0. 55
18		85. 40. 6	84. 8. 43	94. 55. 44	93. 22. 15
19		73. 38. 6	72. 9. 15	82. 37. 40	81. 6. 57
20		61. 54. 54	60. 28. 10	70. 40. 41	69. 12. 24
21		50. 27. 6	49. 2. 3	59. 1. 39	57. 35. 22
22		39. 11. 37		47. 37. 12	46. 12. 31
23					
28	α Spica μ	59. 21. 17	57. 53. 17	56. 25. 17	54. 57. 18
29		47. 37. 26	46. 9. 25	44. 41. 25	43. 13. 24
30		35. 53. 32	34. 25. 37	32. 57. 44	31. 29. 53
31		24. 12. 14	22. 45. 17	21. 18. 40	19. 52. 30

Distances of γ 's Center from $\odot$, and from Stars west of her.

Days.	Stars Names.	Noon.	3 Hours.	6 Hours.	9 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1	The Sun.	39. 8. 2	40. 29. 6	41. 50. 12	43. 11. 20
2		49. 57. 42	51. 19. 11	52. 40. 44	54. 2. 23
3		60. 52. 1	62. 14. 18	63. 36. 43	64. 59. 18
4		71. 54. 35	73. 18. 12	74. 42. 1	76. 6. 3
5		83. 9. 36	84. 35. 5	86. 0. 51	87. 26. 55
6		94. 41. 40	96. 9. 35	97. 37. 51	99. 6. 29
7		106. 35. 4	108. 5. 58	109. 37. 16	111. 8. 58
8		118. 53. 40	120. 27. 52		
6	Regulus.	52. 11. 32	53. 46. 45	55. 22. 19	56. 58. 15
7		65. 3. 21	66. 41. 32	68. 20. 8	69. 59. 9
8	Spica α	25. 19. 57	26. 58. 17	28. 37. 24	30. 17. 14
9		38. 46. 5	40. 29. 37	42. 13. 42	43. 58. 19
10		52. 48. 47	54. 36. 17	56. 24. 12	58. 12. 33
11		67. 20. 15	69. 10. 52	71. 1. 48	72. 53. 3
12	Antares.	37. 0. 16	38. 49. 21	40. 38. 55	42. 28. 55
13		51. 43. 35	53. 35. 9	55. 26. 48	57. 18. 34
14		66. 37. 47			
14	β Capri- corni.	12. 39. 20	14. 31. 0	16. 22. 54	18. 14. 57
15		27. 34. 17	29. 25. 41	31. 16. 52	33. 7. 47
16		42. 17. 50	44. 6. 53	45. 55. 35	47. 43. 56
17	α Aquilæ.	64. 28. 55	66. 1. 2	67. 33. 11	69. 5. 18
18		76. 44. 19	78. 15. 40	79. 46. 48	81. 17. 42
19	Fomal- haut.	54. 53. 4	56. 23. 37	57. 54. 11	59. 24. 45
20		66. 56. 38	68. 26. 43	69. 56. 38	71. 26. 23
21	α Pegasi.	64. 18. 46	65. 45. 35	67. 12. 21	68. 39. 4
22		75. 51. 22	77. 17. 32	78. 43. 36	80. 9. 33
23	α Arietis.	43. 39. 59	45. 5. 11	46. 30. 33	47. 56. 4
24		55. 5. 10	56. 31. 10	57. 57. 12	59. 23. 16
25		66. 33. 52	68. 0. 0	69. 26. 6	70. 52. 12
31 A. 1	The Sun.	43. 3. 10 54. 9. 43	44. 26. 0	45. 48. 57	47. 12. 2

XI. JULY 1775. [83]

Distances of γ 's Center from $\odot$, and from Stars west of her.

Days	Stars Names.	12 Hours.	15 Hours.	18 Hours.	21 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1	The Sun.	44. 32. 30	45. 53. 43	47. 14. 59	48. 36. 19
2		55. 24. 7	56. 45. 55	58. 7. 50	59. 29. 52
3		66. 22. 1	67. 44. 53	69. 7. 56	70. 31. 10
4		77. 30. 17	78. 54. 45	80. 19. 27	81. 44. 24
5		88. 53. 15	90. 19. 53	91. 46. 49	93. 14. 5
6		100. 35. 27	102. 4. 47	103. 34. 29	105. 4. 35
7		112. 41. 5	114. 13. 36	115. 46. 32	117. 19. 53
5	Regulus.	45. 53. 54	47. 27. 50	49. 2. 5	50. 36. 39
6		58. 34. 31	60. 11. 9	61. 48. 10	63. 25. 34
7		71. 38. 35			
7	Spica κ	18. 55. 53	20. 30. 19	22. 5. 52	23. 42. 27
8		31. 57. 46	33. 38. 56	35. 20. 43	37. 3. 6
9		45. 43. 26	47. 29. 3	49. 15. 9	51. 1. 44
10		60. 1. 19	61. 50. 30	63. 40. 3	65. 29. 58
11		74. 44. 36			
11	Antares.	29. 50. 23	31. 36. 44	33. 23. 53	35. 11. 45
12		44. 19. 18	46. 10. 0	48. 0. 58	49. 52. 11
13		59. 10. 24	61. 2. 16	62. 54. 8	64. 46. 0
14	β Capri- corni.	20. 7. 2	21. 59. 1	23. 50. 55	25. 42. 41
15		34. 58. 25	36. 48. 44	38. 38. 45	40. 28. 27
16		49. 31. 55			
16	α Aquilæ.	58. 21. 28	59. 53. 6	61. 24. 55	62. 56. 52
17		70. 37. 21	72. 9. 18	73. 41. 6	75. 12. 47
18		82. 48. 22			
18	Fomal- haut..	48. 51. 46	50. 21. 55	51. 52. 11	53. 22. 34
19		60. 55. 18	62. 25. 46	63. 56. 8	65. 26. 26
20		72. 55. 59			
20	α Pegasi.	58. 31. 24	59. 58. 14	61. 25. 5	62. 51. 55
21		70. 5. 43	71. 32. 16	72. 58. 43	74. 25. 5
22		81. 35. 23			
22	α Arietis.	38. 1. 33	39. 25. 46	40. 50. 15	42. 14. 59
23		49. 21. 44	50. 47. 29	52. 13. 18	53. 39. 12
24		60. 49. 22	62. 15. 28	63. 41. 36	65. 7. 44
25		72. 18. 16			
30			38. 55. 24	40. 17. 53	41. 40. 28
31	The Sun.	48. 35. 16	49. 58. 39	51. 22. 11	52. 45. 52

Configurations of the SATELLITES of J U P I T E R
at 3 o' th' Clock in the Morning.

1	I.O	.3	⊙	2.		.4
2		2.	I.	⊙	.3	4.
3	2.O		⊙	.1	.3	4.
4		1.	⊙		2. 3. 4.	
5			2.	⊙	3. 1. 4.	
6	4.	3.	.2 .1	⊙		
7		3. 4.		⊙	1. .2	
8	4.	.3	.1	⊙	2.	
9	4.	2.		⊙	.3	I.
10	4.		.2	⊙	.1 .3	
11	.4		1.	⊙		.2 3.
12	.4		2.	⊙	3. .1	
13		.4 .3 .1		⊙		
14		3.	.4	⊙	I 2	
15		.3	.1	⊙	2. .4	
16	I 3.O	2.		⊙		.4
17	I.O		.2	⊙	.3	.4
18			1.	⊙	.2 3.	.4
19	2.			⊙	3. .1	4.
20		.2 1. 3.		⊙		4.
21		3.		⊙	.2 1.	4.
22		.3	.1	⊙	4. 2.	
23		2.	4. .3	⊙	1.	
24	I.O	4.	.2	⊙	.3	
25	4.		1.	⊙	.2 .3	
26	4.			⊙	2. .1 3.	
27	.4	2. 1. 3.		⊙		
28	.4	3.		⊙	.2 .1	
29		.4 .3	.1	⊙	2.	
30		.4 .3	2. .1	⊙	1.	
31		.4 .3	.1 .4	⊙	.3	

I. AUGUST 1775. [85]

Days of the Month.	Days of the Week.	Sundays, Holidays, &c.	Phases of the Moon.
			D. H. M.
1	Tu.	Lammas-day.	First Quarter— 4. 2. 16
2	W.		Full Moon — 10. 19. 5
3	Th.		Last Quarter — 17. 14. 9
4	F.		New Moon — 25. 17. 6
5	Sa.		D. Other Phenomena.
6	Su.	[of our Lord. 8th Su. after Trin. Transf. Name of Jesus.	1. ☾ ♄ 3 ^h . 28'.
7	M.		☾ ♄ Im. 7 ^h . 48'. *
8	Tu.		6 ² / ₃ N. of ☾'s cent.
9	W.		Em. 8 ^h . 48'. * 5 ² / ₃ N.
10	Th.	S. Lawrence.	4. ☾ ♄ 20 ^h . 34'.
11	F.	Prs. of Brunswick born.	5. ☾ ♄ 0 ^h . 35'.
12	Sa.	Pr. of Wales born 1762.	☾ ♄ 5 ^h . 57'.
13	Su.	9th Sunday after Trinity. Pr. Frederick born.	10. ☾ eclipsed, invifible.
14	M.		☾ Stationary.
15	Tu.		12. ☾ ♄ 2 ^h . 58'.
16	W.		☾ ♄ diff. Lat. 3° 34'.
17	Th.		☾ ♄ 11 ^h . 52'.
18	F.		18. ☾ ♄ 4 ^h . 51'.
19	Sa.		☾ ♄ 7 ^h . 22'.
20	Su.	10th Sunday after Trinity. Pr. William-Henry born.	☾ ♄ 12 ^h . 27'.
21	M.		20. ☾ ♄ 17 ^h . 24'.
22	Tu.		22. ☾ enters ♄ at 21 ^h . 58'.
23	W.		24. ♄ ♄ diff. Lat. 33'.
24	Th.		25. ☾ eclipsed, invifible.
25	F.		28. ☾ ♄ 13 ^h . 41'.
26	Sa.		☾ ♄ 14 ^h . 38'.
27	Su.	11th Sunday after Trinity. S. Augustine. Beheading of St. John Bapt.	29. ♄ ♄ diff. Lat. 4'.
28	M.		
29	Tu.		
30	W.		
31	Th.		

Days of the Month.	Days of the Week.	Sun's Longitude.	Sun's Right Asc. in Time.	Sun's Declin. North.	Equat. of Time Add.	Diff.
		S. D. M. S.	H. M. S.	D. M. S.	M. S.	S.
1	Tu.	4. 8. 56. 33	8. 45. 31, 1	18. 2. 33	5. 53, 4	
2	W.	4. 9. 54. 1	8. 49. 24, 0	17. 47. 16	5. 49, 7	3, 7
3	Th.	4. 10. 51. 29	8. 53. 16, 4	17. 31. 43	5. 45, 5	4, 2
4	F.	4. 11. 48. 59	8. 57. 8, 0	17. 15. 52	5. 40, 6	4, 9
5	Sa.	4. 12. 46. 29	9. 0. 58, 9	16. 59. 44	5. 35, 1	5, 5
						6, 1
6	Su.	4. 13. 44. 0	9. 4. 49, 4	16. 43. 20	5. 29, 0	6, 7
7	M.	4. 14. 41. 32	9. 8. 39, 2	16. 26. 41	5. 22, 3	7, 4
8	Tu.	4. 15. 39. 4	9. 12. 28, 4	16. 9. 45	5. 14, 9	7, 9
9	W.	4. 16. 36. 38	9. 16. 17, 0	15. 52. 33	5. 7, 0	8, 6
10	Th.	4. 17. 34. 12	9. 20. 5, 0	15. 35. 6	4. 58, 4	9, 1
11	F.	4. 18. 31. 48	9. 23. 52, 4	15. 17. 25	4. 49, 3	9, 6
12	Sa.	4. 19. 29. 25	9. 27. 39, 3	14. 59. 28	4. 39, 7	10, 2
13	Su.	4. 20. 27. 3	9. 31. 25, 6	14. 41. 18	4. 29, 5	10, 7
14	M.	4. 21. 24. 43	9. 35. 11, 4	14. 22. 52	4. 18, 8	11, 2
15	Tu.	4. 22. 22. 24	9. 38. 56, 8	14. 4. 13	4. 7, 6	11, 8
16	W.	4. 23. 20. 7	9. 42. 41, 5	13. 45. 21	3. 55, 8	12, 3
17	Th.	4. 24. 17. 52	9. 46. 25, 8	13. 26. 15	3. 43, 5	12, 8
18	F.	4. 25. 15. 37	9. 50. 9, 4	13. 6. 57	3. 30, 7	13, 3
19	Sa.	4. 26. 13. 25	9. 53. 52, 7	12. 47. 26	3. 17, 4	13, 6
20	Su.	4. 27. 11. 15	9. 57. 35, 6	12. 27. 42	3. 3, 8	14, 2
21	M.	4. 28. 9. 6	10. 1. 17, 9	12. 7. 47	2. 49, 6	14, 5
22	Tu.	4. 29. 7. 0	10. 4. 59, 9	11. 47. 40	2. 35, 1	15, 0
23	W.	5. 0. 4. 55	10. 8. 41, 4	11. 27. 21	2. 20, 1	15, 4
24	Th.	5. 1. 2. 52	10. 12. 22, 5	11. 6. 52	2. 4, 7	15, 8
25	F.	5. 2. 0. 51	10. 16. 3, 2	10. 46. 11	1. 48, 9	16, 3
26	Sa.	5. 2. 58. 51	10. 19. 43, 5	10. 25. 21	1. 32, 6	16, 6
27	Su.	5. 3. 56. 52	10. 23. 23, 3	10. 4. 20	1. 16, 0	17, 1
28	M.	5. 4. 54. 55	10. 27. 2, 8	9. 43. 10	0. 58, 9	17, 4
29	Tu.	5. 5. 52. 59	10. 30. 41, 9	9. 21. 51	0. 41, 5	17, 7
30	W.	5. 6. 51. 6	10. 34. 20, 7	9. 0. 23	0. 23, 8	18, 1
31	Th.	5. 7. 49. 14	10. 37. 59, 1	8. 38. 46	0. 5, 7	18, 4

III. AUGUST 1775. [87]

Days of the Month.	Semidiameter of the Sun.	Time of Day passing the Meridian.	Hourly Motion of the Sun.	Logarithm of the Sun's Distance.	Place of the Moon's Node.
	M. S.	M. S.	M. S.		S. D. M.
1	15. 49, 0	1. 6, 5	2. 23, 6	0. 006262	4. 25. 30
7	15. 49, 9	1. 6, 0	2. 24, 0	0. 005842	4. 25. 11
13	15. 51, 0	1. 5, 6	2. 24, 3	0. 005377	4. 24. 52
19	15. 52, 1	1. 5, 1	2. 24, 6	0. 004875	4. 24. 33
25	15. 53, 3	1. 4, 7	2. 24, 9	0. 004319	4. 24. 14

Eclipses of the SATELLITES of JUPITER.

I. Satellite. Immerfions.		II. Satellite.		III. Satellite.	
Days	H. M. S.	Days	H. M. S.	Days	H. M. S.
2	7. 26. 24	1	17. 39. 22 I.	2	10. 2. 7 I.
4	1. 55. 2	5	6. 57. 0 I.	2	11. 59. 11 E.
5	20. 23. 42	8	20. 14. 48 I.	9	14* 2. 14 I.
7	14* 52. 27	12	9. 32. 44 I.	9	16* 0. 32 E.
9	9. 21. 8	12	11. 53. 58 E.	16	18. 2. 51 I.
11	3. 49. 53	15	22. 50. 50 I.	16	20. 2. 27 E.
12	22. 18. 40	16	1. 12. 14 E.	23	22. 3. 50 I.
14	16. 47. 26	19	12* 9. 6 I.	24	0. 4. 37 E.
16	11. 16. 18	19	14* 30. 40 E.	31	2. 4. 52 I.
18	5. 45. 8	23	1. 27. 21 I.	31	4. 6. 57 E.
20	0. 13. 57	23	3. 49. 0 E.	IV. Satellite. Conj.	
21	18. 42. 51	26	14* 45. 55 I.		
23	13* 11. 47	26	17. 7. 44 E.		
25	7. 40. 39	30	4. 4. 31 I.	7	19. 41 Sup.
27	2. 9. 38	30	6. 26. 29 E.	16	3. 21 Inf.
28	20. 38. 35			24	13* 54 Sup.
30	15* 7. 32				

Days.	Heliocen- tric Lon- gitude.	Heliocen- tric Lati- tude.	Geocen- tric Lon- gitude.	Geocen- tric La- titude.	Declina- tion.	Passage over Merid.
	S. D. M.	D. M.	S. D. M.	D. M.	D. M.	H. M.

MERCURY. Greatest Elon. 18^d.

1	10. 10. 49	6. 58 S	4. 7. 39	4. 49 S	13. 43 N	23. 44
7	11. 3. 19	6. 40	4. 4. 3	3. 52	15. 31	23. 9
13	0. 0. 3	5. 1	4. 3. 46	2. 16	17. 8	22. 50
19	1. 2. 2	1. 41 S	4. 7. 47	0. 35 S	17. 47	22. 48
25	2. 8. 35	2. 43 N	4. 15. 44	0. 46 N	16. 52	23. 0

VENUS. Gr. Elon. 15^d.

1	8. 17. 37	0. 11 S	5. 24. 17	0. 10 S	2. 7 N	2. 53
7	8. 27. 7	0. 44	6. 0. 26	0. 43	0. 50 S	2. 51
13	9. 6. 36	1. 16	6. 6. 23	1. 19	3. 45	2. 50
19	9. 16. 5	1. 46	6. 12. 5	1. 58	6. 35	2. 47
25	9. 25. 34	2. 13	6. 17. 31	2. 40	9. 21	2. 44

MARS.

1	7. 18. 23	0. 0	6. 12. 24	0. 0	4. 54 S	4. 0
7	7. 21. 27	0. 6 S	6. 16. 4	0. 6 S	6. 25	3. 50
13	7. 24. 32	0. 12	6. 19. 49	0. 11	7. 56	3. 41
19	7. 27. 40	0. 18	6. 23. 37	0. 15	9. 25	3. 33
25	8. 0. 49	0. 24	6. 27. 28	0. 20	10. 54	3. 25

JUPITER.

1	2. 5. 17	0. 43 S	2. 14. 41	0. 39 S	21. 57 N	20. 6
7	2. 5. 49	0. 43	2. 15. 43	0. 39	22. 3	19. 47
13	2. 6. 21	0. 42	2. 16. 42	0. 39	22. 9	19. 28
19	2. 6. 52	0. 42	2. 17. 37	0. 39	22. 15	19. 10
25	2. 7. 24	0. 41	2. 18. 27	0. 39	22. 19	18. 52

SATURN.

1	6. 9. 49	2. 27 N	6. 4. 47	2. 19 N	0. 13 N	3. 35
7	6. 10. 1	2. 27	6. 5. 19	2. 19	0. 1 N	3. 14
13	6. 10. 12	2. 27	6. 5. 54	2. 18	0. 14 S	2. 53
19	6. 10. 24	2. 27	6. 6. 30	2. 17	0. 29	2. 33
25	6. 10. 36	2. 27	6. 7. 8	2. 16	0. 45	2. 13

V. AUGUST 1775. [89]

Days of the Month.	Days of the Week.	Moon's Longitude at Noon.	Moon's Longitude at Midnight.	Moon's Latitude at Noon.	Moon's Latitude at Midn.
		S. D. M. S.	S. D. M. S.	D. M. S.	D. M. S.
1	Tu.	6. 3. 2. 11	6. 9. 7. 58	3. 16. 57 N	3. 42. 15 N
2	W.	6. 15. 17. 20	6. 21. 30. 45	4. 5. 14	4. 25. 38
3	Th.	6. 27. 48. 38	7. 4. 11. 28	4. 43. 0	4. 57. 12
4	F.	7. 10. 39. 50	7. 17. 13. 58	5. 7. 49	5. 14. 37
5	Sa.	7. 23. 54. 18	8. 0. 41. 9	5. 17. 17	5. 15. 38
6	Su.	8. 7. 34. 32	8. 14. 34. 37	5. 9. 27	4. 58. 37
7	M.	8. 21. 41. 17	8. 28. 54. 20	4. 43. 3	4. 22. 49
8	Tu.	9. 6. 13. 20	9. 13. 37. 38	3. 58. 2	3. 28. 59
9	W.	9. 21. 6. 30	9. 28. 38. 58	2. 56. 5	2. 19. 49
10	Th.	10. 6. 14. 0	10. 13. 50. 27	1. 40. 55	1. 0. 4 N
11	F.	10. 21. 26. 58	10. 29. 2. 26	0. 18. 7 N	0. 24. 2 S
12	Sa.	11. 6. 35. 31	11. 14. 5. 14	1. 5. 35 S	1. 45. 40
13	Su.	11. 21. 30. 33	11. 28. 50. 42	2. 23. 33	2. 58. 41
14	M.	0. 6. 4. 59	0. 13. 12. 58	3. 30. 24	3. 58. 23
15	Tu.	0. 20. 14. 24	0. 27. 9. 5	4. 22. 20	4. 42. 2
16	W.	1. 3. 57. 6	1. 10. 38. 36	4. 57. 28	5. 8. 32
17	Th.	1. 17. 13. 47	1. 23. 43. 0	5. 15. 21	5. 18. 2
18	F.	2. 0. 6. 43	2. 6. 25. 13	5. 16. 42	5. 11. 31
19	Sa.	2. 12. 39. 6	2. 18. 48. 51	5. 2. 46	4. 50. 33
20	Su.	2. 24. 54. 54	3. 0. 57. 49	4. 35. 11	4. 16. 50
21	M.	3. 6. 58. 1	3. 12. 56. 5	3. 55. 50	3. 32. 21
22	Tu.	3. 18. 52. 22	3. 24. 47. 25	3. 6. 41	2. 39. 8
23	W.	4. 0. 41. 29	4. 6. 35. 6	2. 9. 57	1. 39. 22
24	Th.	4. 12. 28. 32	4. 18. 22. 8	1. 7. 48	0. 35. 28 S
25	F.	4. 24. 16. 12	5. 0. 11. 4	0. 2. 44 S	0. 30. 6 N
26	Sa.	5. 6. 6. 54	5. 12. 4. 9	1. 2. 42 N	1. 34. 42
27	Su.	5. 18. 2. 51	5. 24. 3. 28	2. 5. 48	2. 35. 39
28	M.	6. 0. 6. 7	6. 6. 11. 9	3. 3. 54	3. 30. 15
29	Tu.	6. 12. 18. 42	6. 18. 29. 14	3. 54. 22	4. 15. 57
30	W.	6. 24. 42. 58	7. 1. 0. 8	4. 34. 39	4. 50. 17
31	Th.	7. 7. 21. 5	7. 13. 46. 8	5. 2. 28	5. 11. 3

[90]		AUGUST 1775.					VI.
Days of the Month.	Days of the Week.	D's Age.	D's fals-age over Merid.	D's Right Ascen. at Noon.	D's Right Asc. at Midn.	D's Declinat. at Noon.	D's Declin. at Midn.
			H. M.	D. M.	D. M.	D. M.	D. M.
1	Tu.	6	3. 37	184. 5	189. 51	1. 48 N	0. 13 S
2	W.	7	4. 21	195. 39	201. 32	2. 15 S	4. 17
3	Th.	8	5. 6	207. 31	213. 37	6. 18	8. 16
4	F.	9	5. 53	219. 52	226. 16	10. 10	11. 58
5	Sa.	10	6. 44	232. 52	239. 40	13. 39	15. 10
6	Su.	11	7. 39	246. 39	253. 52	16. 31	17. 38
7	M.	12	8. 37	261. 16	268. 51	18. 30	19. 5
8	Tu.	13	9. 37	276. 35	284. 26	19. 22	19. 18
9	W.	14	10. 40	292. 21	300. 17	18. 54	18. 10
10	Th.	15	11. 41	308. 11	316. 1	17. 6	15. 44
11	F.	16	12. 41	323. 44	331. 19	14. 5	12. 12
12	Sa.	17	13. 38	338. 45	346. 2	10. 7	7. 54
13	Su.	18	14. 31	353. 9	0. 8	5. 34	3. 11 S
14	M.	19	15. 24	6. 58	13. 42	0. 48 S	1. 34 N
15	Tu.	20	16. 14	20. 20	26. 54	3. 52 N	6. 5
16	W.	21	17. 4	33. 24	39. 51	8. 11	10. 9
17	Th.	22	17. 54	46. 17	52. 41	11. 57	13. 35
18	F.	23	18. 43	59. 5	65. 28	15. 2	16. 17
19	Sa.	24	19. 32	71. 52	78. 16	17. 20	18. 10
20	Su.	25	20. 20	84. 39	91. 1	18. 47	19. 11
21	M.	26	21. 9	97. 22	103. 42	19. 22	19. 19
22	Tu.	27	21. 56	109. 59	116. 13	19. 4	18. 35
23	W.	28	22. 43	122. 25	128. 33	17. 55	17. 3
24	Th.	29	23. 29	134. 37	140. 37	16. 0	14. 47
25	F.	1	6	146. 34	152. 27	13. 24	11. 53
26	Sa.	2	0. 13	158. 17	164. 5	10. 15	8. 30
27	Su.	3	0. 58	169. 50	175. 35	6. 40	4. 45
28	M.	4	1. 41	181. 19	187. 4	2. 46 N	0. 46 N
29	Tu.	5	2. 25	192. 51	198. 41	1. 16 S	3. 18 S
30	W.	6	3. 9	204. 35	210. 34	5. 19	7. 18
31	Th.	7	3. 55	216. 40	222. 53	9. 13	11. 2

VII. AUGUST 1775. [91]

Days of the Month.	Days of the Week.	Semidr. Δ at Noon.	Semidr. Δ at Mid. night.	Hor. Par. Δ at Noon.	Hor. Par. Δ at Midnight.	Propor. Lo. ear. at Noon.	Propor. Lo. ear. at Midn.
		M. S.	M. S.	M. S.	M. S.		
1	Tu.	14. 58	15. 2	54. 57	55. 11	5153	5134
2	W.	15. 7	15. 12	55. 28	55. 47	5112	5087
3	Th.	15. 18	15. 24	56. 8	55. 31	5060	5031
4	F.	15. 31	15. 37	56. 56	57. 22	4999	4966
5	Sa.	15. 45	15. 53	57. 49	58. 17	4932	4897
6	Su.	16. 0	16. 8	58. 45	59. 13	4863	4828
7	M.	16. 15	16. 23	59. 40	60. 6	4795	4764
8	Tu.	16. 29	16. 35	60. 30	60. 50	4735	4711
9	W.	16. 39	16. 43	61. 8	61. 21	4690	4675
10	Th.	16. 45	16. 46	61. 29	61. 33	4655	4660
11	F.	16. 46	16. 44	61. 31	61. 25	4663	4670
12	Sa.	16. 41	16. 37	61. 14	60. 59	4683	4700
13	Su.	16. 31	16. 25	60. 38	60. 16	4725	4752
14	M.	16. 18	16. 11	59. 50	59. 22	4783	4817
15	Tu.	16. 3	15. 55	58. 54	58. 25	4852	4887
16	W.	15. 47	15. 40	57. 56	57. 28	4923	4958
17	Th.	15. 32	15. 25	57. 1	56. 35	4992	5026
18	F.	15. 18	15. 12	56. 11	55. 49	5056	5085
19	Sa.	15. 7	15. 2	55. 29	55. 11	5111	5134
20	Su.	14. 58	14. 54	54. 55	54. 42	5155	5173
21	M.	14. 51	14. 48	54. 31	54. 22	5187	5199
22	Tu.	14. 47	14. 45	54. 14	54. 9	5210	5217
23	W.	14. 44	14. 44	54. 5	54. 3	5222	5225
24	Th.	14. 44	14. 44	54. 3	54. 4	5225	5223
25	F.	14. 45	14. 46	54. 7	54. 10	5219	5215
26	Sa.	14. 47	14. 49	54. 15	54. 22	5209	5199
27	Su.	14. 51	14. 53	54. 29	54. 38	5190	5178
28	M.	14. 56	14. 59	54. 48	54. 59	5165	5150
29	Tu.	15. 2	15. 6	55. 12	55. 25	5133	5116
30	W.	15. 10	15. 15	55. 41	55. 57	5095	5075
31	Th.	15. 20	15. 25	56. 15	56. 35	5051	5025

Distances of γ 's Center from $\odot$, and from Stars east of her.

Days.	Stars Names.	Noon.	3 Hours.	6 Hours.	9 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1		64. 1. 8	62. 31. 35	61. 1. 53	59. 32. 3
2	Antares.	52. 0. 45	50. 30. 5	48. 59. 16	47. 28. 20
3		39. 52. 1	38. 20. 31	36. 48. 59	35. 17. 25
4		76. 59. 23	75. 32. 58	74. 6. 23	72. 39. 41
5	α Aquilæ.	65. 24. 40	63. 57. 27	62. 30. 17	61. 3. 11
6		53. 49. 59	52. 24. 14	50. 58. 54	49. 34. 4
7	β Capri-	39. 5. 36	37. 18. 26	35. 30. 53	33. 42. 58
8	corni.	24. 37. 56	22. 48. 4	20. 57. 57	19. 7. 34
9		60. 5. 49	58. 23. 39	56. 41. 48	55. 0. 14
10	α Pegasi.	46. 39. 9	45. 1. 3	43. 23. 54	41. 47. 49
11		73. 17. 0	71. 26. 44	69. 36. 41	67. 46. 50
12	α Arietis.	58. 41. 59	56. 54. 6	55. 6. 44	53. 19. 52
13		44. 34. 37			
13		74. 59. 14	73. 8. 24	71. 17. 56	69. 27. 51
14	Aldeba-	60. 23. 26	58. 35. 48	56. 48. 36	55. 1. 49
15	ran.	46. 14. 29	44. 30. 22	42. 46. 41	41. 3. 27
16		32. 33. 48			
16		76. 54. 16	75. 15. 8	73. 36. 26	71. 58. 10
17	Pollux.	63. 53. 20	62. 17. 38	60. 42. 21	59. 7. 29
18		51. 19. 10			
15			120. 24. 46	118. 48. 17	117. 12. 14
16		109. 18. 29	107. 45. 2	106. 12. 0	104. 39. 21
17		97. 2. 17	95. 32. 3	94. 2. 10	92. 32. 39
18	The Sun.	85. 10. 8	83. 42. 39	82. 15. 27	80. 48. 34
19		73. 38. 12	72. 12. 55	70. 47. 52	69. 23. 3
20		62. 22. 8	60. 58. 31	59. 35. 4	58. 11. 47
21		51. 17. 35	49. 55. 7	48. 32. 46	47. 10. 31
22		40. 20. 36			
28		66. 54. 17	65. 24. 42	63. 55. 1	62. 25. 15
29	Antares.	54. 55. 12	53. 24. 55	51. 54. 33	50. 24. 7
30		42. 50. 58	41. 20. 13	39. 49. 29	38. 18. 46
31	α Aquilæ.	79. 55. 11	78. 30. 21	77. 5. 27	75. 40. 27
S. 1		68. 34. 42			

X. AUGUST 1775. [93]

Distances of γ 's Center from $\odot$, and from Stars east of her.

Days.	Stars Names.	12 Hours.	15 Hours.	18 Hours.	21 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1	Antares.	58. 2. 3	56. 31. 56	55. 1. 41	53. 31. 17
2		45. 57. 17	44. 26. 5	42. 54. 49	41. 23. 28
3		33. 45. 50			
3	α Aquila.	82. 43. 2	81. 17. 28	79. 51. 39	78. 25. 37
4		71. 12. 50	69. 45. 53	68. 18. 52	66. 51. 48
5		59. 36. 9	58. 9. 13	56. 42. 33	55. 16. 8
6		48. 9. 46			
6	β Capri- corni.	46. 10. 9	44. 24. 39	42. 38. 43	40. 52. 22
7		31. 54. 39	30. 5. 56	28. 16. 55	26. 27. 35
8		17. 16. 57			
8	α Pegasi.	66. 55. 14	65. 12. 52	63. 30. 28	61. 48. 6
9		53. 18. 59	51. 38. 5	49. 57. 47	48. 18. 7
10		40. 12. 52			
10	α Arietis.	80. 39. 4	78. 48. 27	76. 57. 53	75. 7. 24
11		65. 57. 12	64. 7. 52	62. 18. 53	60. 30. 14
12		51. 33. 31	49. 47. 47	48. 2. 42	46. 18. 18
13	Aldeba- ran.	67. 38. 10	65. 48. 52	63. 59. 59	62. 11. 30
14		53. 15. 28	51. 29. 34	49. 44. 6	47. 59. 4
15		39. 20. 39	37. 38. 17	35. 56. 23	34. 14. 52
16	Pollux.	70. 20. 21	68. 42. 57	67. 5. 59	65. 29. 27
17		57. 33. 1	55. 58. 58	54. 25. 17	52. 52. 2
15	The Sun.	115. 36. 37	114. 1. 26	112. 26. 41	110. 52. 22
16		103. 7. 9	101. 35. 21	100. 3. 56	98. 32. 55
17		91. 3. 29	89. 34. 39	88. 6. 9	86. 37. 58
18		79. 21. 58	77. 55. 38	76. 29. 33	75. 3. 45
19		67. 58. 28	66. 34. 5	65. 9. 54	63. 45. 55
20		56. 48. 40	55. 25. 42	54. 2. 52	52. 40. 9
21		45. 48. 22	44. 26. 19	43. 4. 20	41. 42. 26
27		72. 51. 40	71. 22. 28	69. 53. 10	68. 23. 47
28	Antares.	60. 55. 25	59. 25. 28	57. 55. 28	56. 25. 22
29		48. 53. 35	47. 23. 0	45. 52. 21	44. 21. 40
30		36. 48. 5			
30	α Aquila.	85. 33. 6	84. 8. 51	82. 44. 27	81. 19. 53
31		74. 15. 22	72. 50. 15	71. 25. 4	69. 59. 54

Distances of γ 's Center from $\odot$, and from Stars west of her.

Days	Stars Names.	Noon.	3 Hours.	6 Hours.	9 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1	The Sun.	54. 9. 43	55. 33. 43	56. 57. 56	58. 22. 19
2		65. 27. 19	66. 52. 59	68. 18. 55	69. 45. 5
3		76. 59. 51	78. 27. 37	79. 55. 44	81. 24. 8
4		88. 51. 8	90. 21. 33	91. 52. 20	93. 23. 29
5		101. 4. 56	102. 38. 25	104. 12. 19	105. 46. 38
6		113. 44. 23	115. 21. 11	116. 58. 26	118. 36. 8
4	Spica μ	21. 11. 6	22. 44. 21	24. 18. 21	25. 53. 11
5		33. 57. 37	35. 36. 23	37. 15. 38	38. 55. 26
6		47. 22. 4	49. 4. 54	50. 48. 12	52. 32. 0
7		61. 17. 58	63. 4. 31	64. 51. 31	66. 38. 57
8	Antares.	30. 45. 47	32. 30. 27	34. 15. 58	36. 2. 19
9		45. 3. 54	46. 53. 47	48. 44. 2	50. 34. 41
10		59. 52. 36	61. 44. 54	63. 37. 18	65. 29. 52
11		74. 53. 34			
11	β Capri- corni.	20. 57. 26	22. 51. 14	24. 45. 0	26. 38. 43
12		36. 5. 50	37. 58. 46	39. 51. 28	41. 43. 56
13		51. 2. 2			
13	α Aquila.	59. 39. 43	61. 14. 30	62. 49. 24	64. 24. 25
14		72. 19. 56	73. 54. 45	75. 29. 28	77. 4. 0
15		84. 52. 48			
15	Fomal- haut.	50. 52. 6	52. 25. 22	53. 58. 39	55. 31. 56
16		63. 17. 25	64. 50. 9	66. 22. 41	67. 55. 2
17		75. 33. 23			
17	α Pegasi.	61. 7. 22	62. 35. 53	64. 4. 18	65. 32. 36
18		72. 52. 14	74. 19. 38	75. 46. 52	77. 13. 55
19		84. 26. 28			
19	α Arietis.	40. 50. 13	42. 15. 28	43. 40. 50	45. 6. 21
20		52. 15. 25	53. 41. 23	55. 7. 21	56. 33. 20
21		63. 43. 12			
21	Aldeba- ran.	30. 15. 0	31. 44. 41	33. 14. 14	34. 43. 43
22		42. 9. 40	43. 38. 40	45. 7. 35	46. 36. 29
23		54. 0. 15	55. 28. 57	56. 57. 38	58. 26. 19
24		65. 49. 43			
29	The Sun.			39. 26. 46	40. 52. 9
30		48. 1. 47	49. 28. 16	50. 54. 58	52. 21. 57
31		59. 39. 40	61. 7. 56	62. 36. 27	64. 5. 14
S. 1		71. 32. 58			

XI. AUGUST 1775. [95]

Distances of $\odot$'s Center from $\odot$, and from Stars west of her.

Days.	Stars Names.	12 Hours.	15 Hours.	18 Hours.	21 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1	The Sun.	59. 46. 54	61. 11. 41	62. 36. 40	64. 1. 53
2		71. 11. 29	72. 38. 12	74. 5. 8	75. 32. 22
3		82. 52. 50	84. 21. 55	85. 51. 19	87. 21. 3
4		94. 55. 0	96. 26. 54	97. 59. 11	99. 31. 52
5		107. 21. 22	108. 56. 29	110. 32. 2	112. 8. 0
6		120. 14. 16			
4	Spica κ	27. 28. 43	29. 4. 59	30. 41. 54	32. 19. 26
5		40. 35. 46	42. 16. 36	43. 57. 55	45. 39. 45
6		54. 16. 16	56. 1. 0	57. 46. 13	59. 31. 51
7		68. 26. 49			
8	Antares.	23. 58. 24	25. 38. 24	27. 19. 41	29. 2. 11
9		37. 49. 30	39. 37. 16	41. 25. 35	43. 14. 27
10		52. 25. 44	54. 17. 4	56. 8. 39	58. 0. 30
11		67. 22. 33	69. 15. 18	71. 8. 3	73. 0. 48
12	β Capri- corni.	28. 32. 23	30. 25. 57	32. 19. 24	34. 12. 41
13		43. 36. 10	45. 28. 6	47. 19. 44	49. 11. 3
13	α Aquilæ.	65. 59. 30	67. 34. 39	69. 9. 46	70. 44. 51
14		78. 38. 20	80. 12. 23	81. 46. 11	83. 19. 40
15	Fomal- haut.	57. 5. 12	58. 38. 25	60. 11. 31	61. 44. 31
16		69. 27. 12	70. 59. 8	72. 30. 49	74. 2. 14
17	α Pegasi.	67. 0. 49	68. 28. 54	69. 56. 50	71. 24. 37
18		78. 40. 49	80. 7. 30	81. 34. 1	83. 0. 21
19	α Arietis.	46. 32. 0	47. 57. 45	49. 23. 35	50. 49. 28
20		57. 59. 20	59. 25. 20	60. 51. 19	62. 17. 16
21	Aldeba- ran.	36. 13. 4	37. 42. 20	39. 11. 31	40. 40. 38
22		48. 5. 19	49. 34. 5	51. 2. 50	52. 31. 34
23		59. 55. 0	61. 23. 41	62. 52. 21	64. 21. 2
29	The Sun.	42. 17. 43	43. 43. 27	45. 9. 23	46. 35. 29
30		53. 48. 58	55. 16. 17	56. 43. 51	58. 11. 38
31		65. 34. 15	67. 3. 32	68. 33. 4	70. 2. 53

Configurations of the SATELLITES of JUPITER
at 3 o'clock in the Morning.

1	10				⊙	2	4	3
2					⊙	1	2	4
3	30		2.	1.	⊙			4
4	2.0		3.		⊙	1		4
5			3.	1.	⊙		2.	4
6				3.	⊙	1.		4
7			2.	1.	⊙	3		4
8	10				⊙	4.	2	3
9	1.0			4.	⊙	2.	3.	
10	30		4.	2.	1.	⊙		
11			4.	2.	1.	⊙	1	
12			3.	1.	⊙		2	
13			3.	2.	⊙	1.		
14			4.	2.	1.	⊙	3	
15			4.		⊙	1.	2	3
16			4.	1.	⊙	2.	3.	
17	4.0		2.	1.	⊙	3.		
18			3.	2.	⊙	1	4	
19			3.	1.	⊙		2	4
20	20		3.		⊙	1		4
21	3.0		2.	1.	⊙			4
22					⊙	2	3	4
23					⊙	2.	3.	4.
24	10		2.		⊙	3.	4.	
25			3.	1.	⊙	1	4	
26			3.	4.	1.	⊙	2	
27	20		4.	3.		⊙	1	
28			4.	2.	1.	⊙	3	
29			4.		1.	⊙	2	3
30			4.		1.	⊙	2.	3.
31			4.		2.	⊙	1.	3.

I. SEPTEMBER 1775. [97]

Days of the Month.	Days of the Week.	Sundays, Holidays, &c.	Phases of the Moon.
			D.H.M.
1	F.	Giles.	First Quarter — 2. 12. 4
2	Sa.	London burnt, 1666, O.S.	Full Moon — 9. 3. 10
			Last Quarter — 16. 4. 26
			New Moon — 24. 9. 14
3	Su.	12th Sunday after Trinity.	Other Phenomena.
4	M.		D.
5	Tu.		1. ☾ ♄ 3 ^h . 11'.
6	W.		☾ ♄ 7 ^h . 17'.
7	Th.	Enurchus.	☾ ♄ 12 ^h . 48'.
8	F.	Nativity of B. V. M.	2. ☾ ☿ Serpent. 3 ^h . 42'.
9	Sa.		3. ☿ ♄ diff. Lat. 58'.
			8. ☾ ♄ 14 ^h . 0'.
			☾ ☿ 22 ^h . 53'.
10	Su.	13th Sunday after Trinity.	12. ☾ 2 ad ☿ Ceti, Im. 8 ^h .
11	M.		57'. * 5' S. of ☿'s
12	Tu.		cent. Em. 9 ^h . 50'.
13	W.		* 5 ^h 1/3 S. of ☿'s cent.
14	Th.	Holy Crofs.	☾ ♄ Ceti 17 ^h . 43'.
15	F.		14. ☾ ♄ ☿ Im. 11 ^h . 36'.
16	Sa.		* 12' N. of ☿'s
			cent. Em. 12 ^h . 19'.
			* 10' N. of ☿'s
17	Su.	14th Sunday after Trinity.	cent.
18	M.	[Lambert.	☾ 2 ad ☿ ☿ 15 ^h . 5'.
19	Tu.		☾ ☿ ☿ 20 ^h . 10'.
20	W.		15. ☿ ☿ diff. Lat. 57'.
21	Th.	St. Matthew.	17. ☾ ♄ ☿ 0 ^h . 16'.
22	F.	K. Geo. III. crown'd 1761.	21. ☾ ♄ ☿ 6 ^h . 33'.
23	Sa.		☾ ☿ ☿ 11 ^h . 38'.
24	Su.	15th Sunday after Trinity.	22. ☾ ♄ ☿ 0 ^h . 52'.
25	M.		☾ ☿ ☿ 17 ^h . 14'.
26	Tu.	S. Cyprian.	☉ enters ☿ at 18 ^h . 19'.
27	W.		28. ☾ ♄ ☿ 8 ^h . 48'.
28	Th.	[born.	☾ ♄ ☿ 12 ^h . 54'.
29	F.	St. Michael. Prs. Ch. Aug.	☾ ♄ ☿ 18 ^h . 25'.
30	Sa.	S. Jerome.	29. ☾ ☿ Serpent. 9 ^h . 26'.

[98] SEPTEMBER 1775. II.						
Days of the Month.	Days of the Week.	Sun's Longitude.	Sun's Right Asc. in Time.	Sun's Declin. North.	Equat. of Time. Sub.	Diff.
		S. D. M. S.	H. M. S.	D. M. S.	M. S.	S.
1	F.	5. 8. 47. 22	10. 41. 37, 2	8. 17. 1	0. 12, 7	18, 8
2	Sa.	5. 9. 45. 32	10. 45. 14, 9	7. 55. 8	0. 31, 5	19, 0
3	Su.	5. 10. 43. 44	10. 48. 52, 4	7. 33. 7	0. 50, 5	19, 4
4	M.	5. 11. 41. 57	10. 52. 29, 6	7. 10. 59	1. 9, 9	19, 6
5	Tu.	5. 12. 40. 11	10. 56. 6, 5	6. 48. 45	1. 29, 5	19, 8
6	W.	5. 13. 38. 27	10. 59. 43, 1	6. 26. 24	1. 49, 3	20, 0
7	Th.	5. 14. 36. 44	11. 3. 19, 6	6. 3. 56	2. 9, 3	20, 3
8	F.	5. 15. 35. 3	11. 6. 55, 8	5. 41. 23	2. 29, 6	20, 4
9	Sa.	5. 16. 33. 24	11. 10. 31, 9	5. 18. 43	2. 50, 0	20, 6
10	Su.	5. 17. 31. 47	11. 14. 7, 8	4. 55. 58	3. 10, 6	20, 7
11	M.	5. 18. 30. 11	11. 17. 43, 6	4. 33. 9	3. 31, 3	20, 8
12	Tu.	5. 19. 28. 38	11. 21. 19, 3	4. 10. 14	3. 52, 1	20, 9
13	W.	5. 20. 27. 6	11. 24. 54, 8	3. 47. 15	4. 13, 0	21, 0
14	Th.	5. 21. 25. 36	11. 28. 30, 4	3. 24. 12	4. 34, 0	21, 0
15	F.	5. 22. 24. 9	11. 32. 5, 9	3. 1. 5	4. 55, 0	21, 0
16	Sa.	5. 23. 22. 45	11. 35. 41, 4	2. 37. 54	5. 16, 0	21, 0
17	Su.	5. 24. 21. 22	11. 39. 16, 9	2. 14. 40	5. 37, 0	21, 0
18	M.	5. 25. 20. 2	11. 42. 52, 4	1. 51. 23	5. 58, 0	20, 9
19	Tu.	5. 26. 18. 44	11. 46. 27, 9	1. 28. 3	6. 18, 9	20, 9
20	W.	5. 27. 17. 28	11. 50. 3, 6	1. 4. 42	6. 39, 8	20, 8
21	Th.	5. 28. 16. 15	11. 53. 39, 3	0. 41. 19	7. 0, 6	20, 6
22	F.	5. 29. 15. 4	11. 57. 15, 1	0. 17. 53	7. 21, 2	20, 6
23	Sa.	6. 0. 13. 55	12. 0. 51, 0	0. 5. 33	7. 41, 8	20, 5
24	Su.	6. 1. 12. 48	12. 4. 27, 1	0. 28. 59	8. 2, 3	20, 3
25	M.	6. 2. 11. 43	12. 8. 3, 3	0. 52. 26	8. 22, 6	20, 1
26	Tu.	6. 3. 10. 40	12. 11. 39, 7	1. 15. 54	8. 42, 7	19, 9
27	W.	6. 4. 9. 39	12. 15. 16, 3	1. 39. 20	9. 2, 6	19, 7
28	Th.	6. 5. 8. 40	12. 18. 53, 1	2. 2. 47	9. 22, 3	19, 5
29	F.	6. 6. 7. 43	12. 22. 30, 1	2. 26. 12	9. 41, 8	19, 3
30	Sa.	6. 7. 6. 48	12. 26. 7, 3	2. 49. 35	10. 1, 1	19, 1

III. SEPTEMBER 1775. [99]

Days of the Month.	Semidia-meter of the Sun.	Time of D ^o passing the Meridian.	Hourly Motion of the Sun.	Logarithm of the Sun's Distance.	Place of the Moon's Node.
	M. S.	M. S.	M. S.		S. D. M.
1	15. 54, 9	1. 4, 3	2. 25, 3	0. 003582	4. 23. 52
7	15. 56, 4	1. 4, 1	2. 25, 7	0. 002902	4. 23. 33
13	15. 57, 9	1. 4, 0	2. 26, 2	0. 002206	4. 23. 14
19	15. 59, 4	1. 4, 0	2. 26, 7	0. 001505	4. 22. 55
25	16. 1, 1	1. 4, 1	2. 27, 3	0. 000774	4. 22. 36

Eclipses of the SATELLITES of J U P I T E R.

I. Satellite. Immerfions.		II. Satellite.		III. Satellite.	
Days	H. M. S.	Days	H. M. S.	Days	H. M. S.
1	9. 36. 30	2	17. 23. 16 I.	7	6. 6. 17 I.
3	4. 5. 30	2	19. 45. 25 E.	7	8. 9. 41 E.
4	22. 34. 28	6	6. 42. 3 I.	14	10. 7. 50 I.
6	17. 3. 29	6	9. 4. 22 E.	14	12* 12. 34 E.
8	11* 32. 32	9	20. 0. 55 I.	21	14* 9. 14 I.
10	6. 1. 32	9	22. 23. 23 E.	21	16* 15. 15 E.
12	0. 30. 35	13	9. 19. 54 I.	28	18. 10. 35 I.
13	18. 59. 36	13	11* 42. 32 E.	28	20. 17. 54 E.
15	13* 28. 39	16	22. 38. 56 I.	IV. Satellite. Conj.	
17	7. 57. 41	17	1. 1. 43 E.		
19	2. 26. 41	20	11* 58. 3 I.		
20	20. 55. 42	20	14* 21. 1 E.		
22	15* 24. 42	24	1. 17. 11 I.		
24	9. 53. 43	24	3. 40. 19 E.		
26	4. 22. 42	27	14* 36. 18 I.		
27	22. 51. 41	27	16* 59. 36 E.		
29	17* 20. 41				
				1	21. 32. 20 Inf.
				10	8. 8. 50 Sup.
				18	15. 45. 10 Inf.
				27	2. 23. 41 Sup.

[100] SEPTEMBER 1775. IV.

DAYS.	Heliocen- tric Lon- gitude.	Heliocen- tric Lati- tude.	Geocen- tric Lon- gitude.	Geocen- tric La- titude.	Declina- tion.	Passage over Merid.
	S. D. M.	D. M.	S. D. M.	D. M.	D. M.	H. M.

MERCURY. Sup. σ 12^d. 12^h.

1	3. 22. 2	6. 24 N	4. 28. 7	1. 38 N	13. 40 N	23. 26
7	4. 24. 54	6. 54	5. 9. 37	1. 47	9. 38	23. 48
13	5. 22. 12	5. 38	5. 20. 56	1. 33	5. 1	0. 5
19	6. 14. 53	3. 36	6. 1. 42	1. 4	0. 18 N	0. 21
25	7. 4. 25	1. 23	6. 11. 54	0. 26	4. 18 S	0. 36

VENUS.

1	10. 6. 38	2. 40 S	6. 23. 25	3. 31 S	12. 23 S	2. 39
7	10. 16. 7	2. 59	6. 27. 58	4. 17	14. 45	2. 34
13	10. 25. 36	3. 12	7. 1. 56	5. 2	16. 53	2. 27
19	11. 5. 6	3. 21	7. 5. 11	5. 47	18. 42	2. 17
25	11. 14. 37	3. 23	7. 7. 30	6. 28	20. 8	2. 4

MARS.

1	8. 4. 32	0. 31 S	7. 2. 3	0. 25 S	12. 35 S	3. 17
7	8. 7. 46	0. 37	7. 6. 2	0. 29	14. 1	3. 11
13	8. 11. 2	0. 43	7. 10. 4	0. 33	15. 23	3. 5
19	8. 14. 19	0. 49	7. 14. 10	0. 37	16. 42	3. 0
25	8. 17. 39	0. 55	7. 18. 19	0. 41	17. 57	2. 54

JUPITER. $\square$ 13^d. 2^h.

1	2. 8. 1	0. 40 S	2. 19. 19	0. 39 S	22. 23 N	18. 30
7	2. 8. 33	0. 40	2. 19. 58	0. 40	22. 26	18. 11
13	2. 9. 4	0. 39	2. 20. 32	0. 40	22. 28	17. 52
19	2. 9. 36	0. 38	2. 20. 59	0. 40	22. 30	17. 32
25	2. 10. 7	0. 38	2. 21. 19	0. 40	22. 31	17. 12

SATURN.

1	6. 10. 50	2. 28 N	6. 7. 54	2. 15 N	1. 4 S	1. 51
7	6. 11. 2	2. 28	6. 8. 36	2. 15	1. 21	1. 32
13	6. 11. 14	2. 28	6. 9. 18	2. 15	1. 37	1. 13
19	6. 11. 26	2. 28	6. 10. 1	2. 14	1. 55	0. 54
25	6. 11. 38	2. 28	6. 10. 44	2. 14	2. 12	0. 35

V. SEPTEMBER 1775. [101]

Days of the Month.	Days of the Week.	Moon's Longitude at Noon.	Moon's Longitude at Midnight.	Moon's Latitude at Noon.	Moon's Latitude at Midn.
		S. D. M. S.	S. D. M. S.	D. M. S.	D. M. S.
1	F.	7. 20. 15. 29	7. 26. 49. 31	5. 15. 46 N	5. 16. 26 N
2	Sa.	8. 3. 28. 26	8. 10. 12. 28	5. 12. 54	5. 5. 3
3	Su.	8. 17. 1. 42	8. 23. 56. 24	4. 52. 52	4. 36. 15
4	M.	9. 0. 56. 32	9. 8. 2. 14	4. 15. 19	3. 50. 17
5	Tu.	9. 15. 12. 43	9. 22. 28. 22	3. 21. 21	2. 48. 51
6	W.	9. 29. 48. 29	10. 7. 12. 30	2. 13. 15	1. 35. 7
7	Th.	10. 14. 39. 48	10. 22. 9. 30	0. 55. 6 N	0. 13. 57 N
8	F.	10. 29. 40. 32	11. 7. 11. 52	0. 27. 31 S	1. 8. 33 S
9	Sa.	11. 14. 42. 32	11. 22. 11. 13	1. 48. 17	2. 25. 57
10	Su.	11. 29. 36. 53	0. 6. 58. 45	3. 0. 52	3. 32. 26
11	M.	0. 14. 15. 40	0. 21. 26. 54	4. 0. 10	4. 23. 43
12	Tu.	0. 28. 32. 2	1. 5. 30. 38	4. 42. 50	4. 57. 25
13	W.	1. 12. 22. 25	1. 19. 7. 24	5. 7. 29	5. 13. 3
14	Th.	1. 25. 45. 36	2. 2. 17. 16	5. 14. 19	5. 11. 28
15	F.	2. 8. 42. 42	2. 15. 2. 25	5. 4. 44	4. 54. 22
16	Sa.	2. 21. 16. 51	2. 27. 26. 31	4. 40. 36	4. 23. 48
17	Su.	3. 3. 32. 6	3. 9. 34. 44	4. 4. 8	3. 41. 57
18	M.	3. 15. 33. 6	3. 21. 29. 48	3. 17. 32	2. 51. 7
19	Tu.	3. 27. 24. 53	4. 3. 18. 46	2. 22. 59	1. 53. 27
20	W.	4. 9. 12. 6	4. 15. 5. 25	1. 22. 46	0. 51. 12 S
21	Th.	4. 20. 59. 9	4. 26. 53. 51	0. 19. 7 S	0. 13. 16 N
22	F.	5. 2. 49. 47	5. 8. 47. 26	0. 45. 34 N	1. 17. 28
23	Sa.	5. 14. 47. 1	5. 20. 48. 53	1. 48. 42	2. 18. 49
24	Su.	5. 26. 53. 14	6. 3. 0. 15	2. 47. 34	3. 14. 33
25	M.	6. 9. 10. 4	6. 15. 22. 44	3. 39. 26	4. 1. 53
26	Tu.	6. 21. 38. 31	6. 27. 57. 23	4. 21. 38	4. 38. 17
27	W.	7. 4. 19. 23	7. 10. 44. 35	4. 51. 39	5. 1. 27
28	Th.	7. 17. 12. 59	7. 23. 44. 44	5. 7. 29	5. 9. 34
29	F.	8. 0. 19. 46	8. 6. 58. 14	5. 7. 37	5. 1. 31
30	Sa.	8. 13. 40. 5	8. 20. 25. 21	4. 51. 16	4. 36. 52

[102] S E P T E M B E R 1775. VI.

Days of the Month.	Days of the Week.	D's Age.	D's Pass- age over Merid.	D's Right Ascen. at Noon.	D's Right Asc. at Midn.	D's De- clinat. at Noon.	D's De- clin. at Midn.
			H. M.	D. M.	D. M.	D. M.	D. M.
1	F.	8	4. 45	229. 15	235. 47	12. 45 S	14. 20 S
2	Sa.	9	5. 37	242. 29	249. 21	15. 45	16. 58
3	Su.	10	6. 32	256. 24	263. 37	17. 58	18. 43
4	M.	11	7. 29	271. 0	278. 30	19. 12	19. 23
5	Tu.	12	8. 29	286. 6	293. 47	19. 16	18. 49
6	W.	13	9. 29	301. 30	309. 12	18. 3	16. 57
7	Th.	14	10. 29	316. 51	324. 27	15. 34	13. 55
8	F.	15	11. 27	331. 57	339. 20	12. 2	9. 56
9	Sa.	16	12. 23	346. 37	353. 47	7. 42	5. 20
10	Su.	17	13. 18	0. 50	7. 48	2. 55 S	0. 29 S
11	M.	18	14. 11	14. 41	21. 28	1. 56 N	4. 18 N
12	Tu.	19	15. 3	28. 12	34. 53	6. 33	8. 42
13	W.	20	15. 54	41. 31	48. 7	10. 41	12. 30
14	Th.	21	16. 44	54. 42	61. 16	14. 8	15. 33
15	F.	22	17. 35	67. 49	74. 20	16. 46	17. 45
16	Sa.	23	18. 24	80. 50	87. 18	18. 31	19. 3
17	Su.	24	19. 14	93. 44	100. 8	19. 21	19. 26
18	M.	25	20. 2	106. 28	112. 46	19. 17	18. 56
19	Tu.	26	20. 49	119. 0	125. 10	18. 22	17. 36
20	W.	27	21. 35	131. 16	137. 18	16. 39	15. 31
21	Th.	28	22. 20	143. 17	149. 12	14. 13	12. 46
22	F.	29	23. 4	155. 4	160. 54	11. 11	9. 29
23	Sa.	30	23. 48	166. 42	172. 29	7. 40	5. 46
24	Su.	1	0	178. 15	184. 3	3. 48 N	1. 47 N
25	M.	2	0. 32	189. 52	195. 43	0. 17 S	2. 20 S
26	Tu.	3	1. 17	201. 38	207. 38	4. 24	6. 25
27	W.	4	2. 4	213. 43	219. 55	8. 24	10. 17
28	Th.	5	2. 52	226. 14	232. 41	12. 4	13. 44
29	F.	6	3. 42	239. 16	246. 1	15. 14	16. 32
30	Sa.	7	4. 35	252. 54	259. 56	17. 39	18. 31

VII. SEPTEMBER 1775. [103]

Days of the Month.	Days of the Week.	Semidr. $\nearrow$ at Noon.	Semidr. $\searrow$ at Mid-night.	Hor.Par. $\nearrow$ at Noon.	Hor. Par. $\searrow$ at Midnight.	Proport. Lo- gar. at Noon.	Proport Lo- gar at Midn.
		M. S.	M. S.	M. S.	M. S.		
1	F.	15. 30	15. 37	56. 55	57. 17	5000	4972
2	Sa.	15. 43	15. 49	57. 40	58. 3	4943	4915
3	Su.	15. 56	16. 2	58. 28	58. 52	4883	4854
4	M.	16. 9	16. 15	59. 16	59. 39	4824	4797
5	Tu.	16. 21	16. 26	60. 1	60. 20	4770	4747
6	W.	16. 31	16. 35	60. 38	60. 52	4725	4709
7	Th.	16. 38	16. 40	61. 3	61. 10	4696	4687
8	F.	16. 41	16. 40	61. 13	61. 11	4684	4686
9	Sa.	16. 38	16. 35	61. 4	60. 53	4694	4708
10	Su.	16. 31	16. 26	60. 37	60. 19	4727	4748
11	M.	16. 20	16. 13	59. 56	59. 32	4776	4805
12	Tu.	16. 6	15. 58	59. 5	58. 37	4838	4872
13	W.	15. 50	15. 43	58. 8	57. 40	4908	4943
14	Th.	15. 35	15. 28	57. 12	56. 45	4979	5013
15	F.	15. 21	15. 15	56. 20	55. 57	5045	5075
16	Sa.	15. 9	15. 4	55. 35	55. 17	5103	5127
17	Su.	14. 59	14. 55	55. 0	54. 46	5149	5167
18	M.	14. 52	14. 50	54. 34	54. 25	5183	5195
19	Tu.	14. 48	14. 46	54. 18	54. 13	5205	5211
20	W.	14. 46	14. 46	54. 11	54. 11	5214	5214
21	Th.	14. 46	14. 47	54. 12	54. 16	5213	5207
22	F.	14. 48	14. 50	54. 20	54. 27	5202	5193
23	Sa.	14. 52	14. 55	54. 35	54. 44	5182	5170
24	Su.	14. 58	15. 1	54. 54	55. 5	5157	5142
25	M.	15. 4	15. 7	55. 17	55. 30	5127	5110
26	Tu.	15. 11	15. 15	55. 43	55. 57	5093	5075
27	W.	15. 19	15. 23	56. 12	56. 27	5055	5036
28	Th.	15. 27	15. 31	56. 42	56. 58	5017	4996
29	F.	15. 36	15. 41	57. 15	57. 32	4975	4953
30	Sa.	15. 45	15. 50	57. 49	58. 7	4932	4910

[104] SEPTEMBER 1775. VIII.

Distances of γ 's Center from Stars, and from $\odot$ east of her.

Days.	Stars Names.	Noon.	3 Hours.	6 Hours.	9 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1		68. 34. 42	67. 9. 31	65. 44. 20	64. 19. 11
2	α Aquilæ.	57. 15. 20	55. 51. 12	54. 27. 24	53. 3. 57
3		46. 14. 51			
3	β Capri-	43. 43. 49	42. 1. 11	40. 18. 11	38. 34. 50
4	corni.	29. 53. 4	28. 7. 42	26. 22. 4	24. 36. 9
5		15. 42. 58			
5		65. 28. 33	63. 49. 29	62. 10. 20	60. 31. 11
6	α Pegasi.	52. 17. 35	50. 39. 42	49. 2. 15	47. 25. 19
7		39. 32. 39			
7		79. 51. 32	78. 2. 47	76. 13. 55	74. 25. 2
8	α Arietis.	65. 20. 41	63. 32. 4	61. 43. 36	59. 55. 20
9		50. 58. 12	49. 11. 58	47. 26. 16	45. 41. 8
10		66. 52. 15	65. 1. 14	63. 10. 31	61. 20. 6
11	Aldeba-	52. 13. 9	50. 24. 53	48. 37. 0	46. 49. 32
12	ran.	37. 58. 15	36. 13. 16	34. 28. 43	32. 44. 36
13		24. 10. 39	22. 29. 9	20. 48. 7	19. 7. 31
14		10. 50. 56			
14		55. 32. 51	53. 56. 49	52. 21. 15	50. 46. 10
15	Pollux.	42. 58. 6	41. 25. 59	39. 54. 22	38. 23. 17
16		30. 56. 34	29. 29. 11	28. 2. 34	26. 36. 47
14		115. 33. 6	114. 2. 23	112. 32. 3	111. 2. 7
15		103. 38. 10	102. 10. 27	100. 43. 4	99. 16. 1
16		92. 5. 29	90. 40. 16	89. 15. 18	87. 50. 36
17	The Sun.	80. 50. 40	79. 27. 21	78. 4. 13	76. 41. 16
18		69. 49. 1	68. 27. 0	67. 5. 6	65. 43. 19
19		58. 55. 39	57. 34. 21	56. 13. 5	54. 51. 53
20		48. 6. 15	46. 45. 10	45. 24. 4	44. 2. 58
26		45. 48. 44	44. 17. 8	42. 45. 30	41. 13. 52
27	Antares.	33. 36. 32	32. 5. 26	30. 34. 36	29. 4. 5
28		71. 17. 6	69. 51. 53	68. 26. 43	67. 1. 38
29	α Aquilæ.	59. 58. 27	58. 34. 29	57. 10. 49	55. 47. 30
30		48. 58. 16			
30	β Capri-	47. 4. 35	45. 24. 7	43. 43. 25	42. 2. 29
O.1	coi.	33. 34. 26			

IX. SEPTEMBER 1775. [105]

Distances of ☽'s Center from Stars, and from ☉ east of her.

Days.	Stars Names.	12 Hours.	15 Hours.	18 Hours.	21 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1	α Aquilæ.	62. 54. 6	61. 29. 9	60. 4. 21	58. 39. 44
2		51. 40. 57	50. 18. 29	48. 56. 37	47. 35. 23
3	β Capri- corni.	36. 51. 9	35. 7. 7	33. 22. 46	31. 38. 5
4		22. 49. 57	21. 3. 31	19. 16. 52	17. 30. 1
5	α Pegasi.	58. 52. 6	57. 13. 9	55. 34. 23	53. 55. 50
6		45. 49. 2	44. 13. 29	42. 38. 48	41. 5. 9
7	α Arietis.	72. 36. 5	70. 47. 8	68. 58. 15	67. 9. 26
8		58. 7. 18	56. 19. 28	54. 32. 1	52. 44. 55
9		43. 56. 37			
9	Aldeba- ran.	74. 18. 46	72. 26. 48	70. 35. 3	68. 43. 32
10		59. 30. 0	57. 40. 15	55. 50. 51	54. 1. 49
11		45. 2. 27	43. 15. 46	41. 29. 31	39. 43. 40
12		31. 0. 55	29. 17. 41	27. 34. 54	25. 52. 33
13		17. 27. 20	15. 47. 35	14. 8. 16	12. 29. 23
14	Pollux.	49. 11. 34	47. 37. 28	46. 3. 51	44. 30. 44
15		36. 52. 45	35. 22. 47	33. 53. 24	32. 24. 39
16		25. 11. 53			
13	The Sun.		120. 7. 44	118. 35. 46	117. 4. 13
14		109. 32. 35	108. 3. 25	106. 34. 38	105. 6. 13
15		97. 49. 18	96. 22. 54	94. 56. 48	93. 31. 0
16		86. 26. 10	85. 1. 57	83. 37. 58	82. 14. 12
17		75. 18. 31	73. 55. 55	72. 33. 28	71. 11. 10
18		64. 21. 38	63. 0. 1	61. 38. 29	60. 17. 2
19		53. 30. 43	52. 9. 34	50. 48. 27	49. 27. 20
20		42. 41. 51	41. 20. 43	39. 59. 34	
26	Antares.	39. 42. 15	38. 10. 42	36. 39. 12	35. 7. 48
27		27. 33. 57			
27	α Aquilæ.	76. 58. 6	75. 32. 53	74. 7. 38	72. 42. 22
28		65. 36. 40	64. 11. 50	62. 47. 10	61. 22. 42
29		54. 24. 36	53. 2. 10	51. 40. 15	50. 18. 56
30	β Capric.	40. 21. 20	38. 39. 57	36. 58. 20	35. 16. 30

[106] SEPTEMBER 1775. X.

Distances of γ 's Center from $\odot$, and from Stars west of her.

Days.	Stars Names.	Noon.	3 Hours.	6 Hours.	9 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1	The Sun.	71. 32. 58	73. 3. 21	74. 34. 2	76. 5. 1
2		83. 44. 28	85. 17. 19	86. 50. 29	88. 24. 0
3		96. 16. 35	97. 52. 10	99. 28. 6	101. 4. 24
4		109. 11. 16	110. 49. 43	112. 28. 32	114. 7. 42
3	Spica μ	56. 41. 33	58. 23. 31	60. 5. 51	61. 48. 35
4		70. 27. 59	72. 13. 0	73. 58. 23	75. 44. 8
5	Antares.	39. 21. 0	41. 5. 48	42. 51. 10	44. 37. 6
6		53. 33. 51	55. 22. 26	57. 11. 21	59. 0. 36
7		68. 11. 17			
7	β Capri- corni.	14. 13. 3	16. 4. 15	17. 55. 50	19. 47. 45
8		29. 10. 31	31. 3. 24	32. 56. 19	34. 49. 15
9		44. 13. 27	46. 6. 0	47. 58. 24	49. 50. 37
10	α Aquilæ.	66. 39. 2	68. 15. 49	69. 52. 39	71. 29. 33
11		79. 32. 58	81. 9. 10	82. 45. 8	84. 20. 50
12	Fomal- haut.	58. 21. 26	59. 57. 20	61. 33. 9	63. 8. 50
13		71. 4. 19			
13	α Pegasi.	56. 43. 54	58. 15. 13	59. 46. 27	61. 17. 35
14		68. 51. 19	70. 21. 31	71. 51. 29	73. 21. 15
15		80. 46. 20			
15	α Arietis.	37. 13. 28	38. 39. 53	40. 6. 32	41. 33. 23
16		48. 48. 57	50. 16. 9	51. 43. 20	53. 10. 27
17	Aldeba- ran,	26. 49. 19	28. 20. 2	29. 50. 35	31. 20. 56
18		38. 50. 16	40. 19. 43	41. 49. 3	43. 18. 17
19		50. 43. 14	52. 12. 0	53. 40. 44	55. 9. 26
20		62. 32. 35	64. 1. 13	65. 29. 52	66. 58. 33
21	Pollux.	31. 34. 45	32. 59. 15	34. 24. 9	35. 49. 24
22		43. 0. 10	44. 27. 8	45. 54. 19	47. 21. 44
23		54. 41. 58			
28	The Sun.	42. 19. 30	43. 49. 3	45. 18. 49	46. 48. 48
29		54. 21. 57	55. 53. 15	57. 24. 46	58. 56. 31
30		66. 38. 38	68. 11. 44	69. 45. 4	71. 18. 38
O.1		79. 10. 13			

XI. SEPTEMBER 1775. [107]

Distances of γ 's Center from $\odot$, and from Stars west of her.

Days.	Stars Names.	12 Hours.	15 Hours.	18 Hours.	21 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1	The Sun.	77. 36. 17	79. 7. 52	80. 39. 45	82. 11. 57
2		89. 57. 50	91. 32. 0	93. 6. 31	94. 41. 23
3		102. 41. 4	104. 18. 5	105. 55. 27	107. 33. 11
4		115. 47. 13	117. 27. 5	119. 7. 18	120. 47. 52
2	Spica μ	49. 57. 39	51. 38. 2	53. 18. 49	54. 59. 59
3		63. 31. 42	65. 15. 12	66. 59. 5	68. 43. 21
4		77. 30. 16			
4	Antares.	32. 28. 29	34. 10. 30	35. 53. 18	37. 36. 49
5		46. 23. 34	48. 10. 30	49. 57. 51	51. 45. 38
6		60. 50. 12	62. 40. 5	64. 30. 14	66. 20. 38
7	β Capri- corni.	21. 39. 56	23. 32. 22	25. 24. 58	27. 17. 42
8		36. 42. 12	38. 35. 8	40. 27. 59	42. 20. 45
9		51. 42. 38			
9	α Aquilæ.	60. 13. 58	61. 49. 50	63. 26. 0	65. 2. 24
10		73. 6. 28	74. 43. 17	76. 19. 59	77. 56. 32
11		85. 56. 13			
11	Fomal- haut.	51. 57. 44	53. 33. 34	55. 9. 30	56. 45. 28
12		64. 44. 21	66. 19. 42	67. 54. 50	69. 29. 43
13	α Pegasi.	62. 48. 38	64. 19. 33	65. 50. 18	67. 20. 53
14		74. 50. 47	76. 20. 4	77. 49. 6	79. 17. 52
15	α Arietis.	43. 0. 22	44. 27. 27	45. 54. 35	47. 21. 45
16		54. 37. 29			
16	Aldeba- ran.	20. 44. 14	22. 15. 50	23. 47. 14	25. 18. 24
17		32. 51. 6	34. 21. 6	35. 50. 58	37. 20. 42
18		44. 47. 25	46. 16. 29	47. 45. 28	49. 14. 23
19		56. 38. 5	58. 6. 43	59. 35. 21	61. 3. 58
20	Pollux.	68. 27. 15			
20		26. 1. 43	27. 24. 11	28. 47. 11	30. 10. 43
21		37. 14. 59	38. 40. 52	40. 7. 2	41. 33. 28
22		48. 49. 23	50. 17. 14	51. 45. 18	53. 13. 32
27	The Sun.			39. 21. 3	40. 50. 10
28		48. 19. 0	49. 49. 24	51. 20. 2	52. 50. 53
29		60. 28. 30	62. 0. 42	63. 33. 7	65. 5. 46
30		72. 52. 27	74. 26. 30	76. 0. 49	77. 35. 23

[108] SEPTEMBER 1775. XII.

Configurations of the SATELLITES of JUPITER
at 12 o'clock at Night.

1	1●	3.	4.	⊙	2.
2	4.0	3.		⊙	1. 2.
3		2. 3.	3.	⊙	4.
4			2.	⊙	1. 3. 4.
5		1.		⊙	2. 3. 4.
6	2●			⊙	1. 3. 4.
7	3●	2.	1.	⊙	4.
8	1●	3.		⊙	2. 4.
9	1.0	3.		⊙	2. 3.
10		2. 3.	1.	⊙	4.
11		4.	2.	⊙	3 0 1
12		4.	1.	⊙	2. 3.
13				⊙	2. 3.
14	3.	2.	1.	⊙	3●
15	4.	3.		⊙	1. 2.
16	4.	3.	1.	⊙	2.
17		4.	3.	⊙	1.
18			4. 2.	⊙	3. 1.
19		1.		⊙	4. 2. 3.
20	2●			⊙	1. 3. 4.
21		2.	1.	⊙	3. 4.
22	2.0	3.		⊙	1. 4.
23		3.	1.	⊙	2. 4.
24	1●	3.	2.	⊙	4.
25	3.0	2.		⊙	1. 4.
26		1.		⊙	2. 4. 3.
27	4●			⊙	2. 1. 3.
28		4 0 2.	1.	⊙	3.
29		4.	3.	⊙	1. 2.
30		4.	3.	⊙	2.

OCTOBER 1775. [109]

Days of the Month.	Days of the Week.	Sundays, Holidays, &c.	Phases of the Moon.	
			D. H. M.	
			First Quarter —	1. 20. 21
			Full Moon —	8. 12. 48
			Last Quarter —	15. 22. 27
			New Moon —	24. 0. 30
			First Quarter —	31. 3. 54
			Other Phenomena.	
			3. ♀ Stationary.	
			4. ☿ ♄ diff. Lat. 48'.	
			5. ☿ ♄ 23 ^h . 58'.	
			6. ☿ ♄ 9 ^h . 3'.	
			7. ☿ ♄ diff. Lat. 55'.	
			9. ☿ ♄ 2 ad ☿ Ceti 20 ^h . 22'.	
			10. ♃ Stationary.	
			☿ ♃ Ceti 4 ^h . 0'.	
			11. ☿ ♃ 22 ^h . 7'.	
			12. ☿ ♃ 1 ad ♄ 0 ^h . 3'.	
			☿ ♃ 2 ad ♄ 0 ^h . 25'.	
			☿ ♃ 5 ^h . 24'.	
			14. ☿ ♃ 8 ^h . 26'.	
			18. ☿ ♃ 14 ^h . 4'.	
			☿ ♃ 19 ^h . 9'.	
			19. ☿ ♃ 1 ad ♄ diff. Lat. 27'.	
			☿ ♃ 8 ^h . 24'.	
			20. ☿ ♃ 0 ^h . 48'.	
			☿ ♃ 9 ^h . 8'.	
			22. ☿ ♃ 3 ^h . 17'.	
			23. ☉ enters ♍ at 2 ^h . 11'.	
			25. ☿ ♄ 19 ^h . 4'.	
			26. ☿ ♄ 0 ^h . 30'.	
			☿ ♄ Serpent. 15 ^h . 17'.	
			29. ♀ ♄ diff. Lat. 51'.	
1	Su.	16th Sunday after Trinity.		
2	M.	[Remigius.		
3	Tu.			
4	W.			
5	Th.			
6	F.	Faith.		
7	Sa.			
8	Su.	17th Sunday after Trinity.		
9	M.	S. Denys.		
10	Tu.	Oxf. and Camb. Terms		
11	W.	[begin.		
12	Th.			
13	F.	Transf. of K. Edw. Conf.		
14	Sa.			
15	Su.	18th Sunday after Trinity.		
16	M.			
17	Tu.	Etheldred.		
18	W.	St. Luke.		
19	Th.			
20	F.			
21	Sa.			
22	Su.	19th Sunday after Trinity.		
23	M.			
24	Tu.			
25	W.	K. Geo. III. Acces. Crisp.		
26	Th.	K. Geo. III. procl. 1760.		
27	F.			
28	Sa.	St. Simon and St. Jude.		
29	Su.	20th Sunday after Trinity.		
30	M.			
31	Tu.			

[110]		OCTOBER 1775.					II.
Days of the Month.	Days of the Week.	Sun's Longitude.	Sun's Right Asc. in Time.	Sun's Declin. South.	Equat. of Time. Sub.	Diff.	
		S. D. M. S.	H. M. S.	D. M. S.	M. S.	S.	
1	Su.	6. 8. 5. 54	12.29.44,7	3. 12. 57	10. 20,2	18,7	
2	M.	6. 9. 5. 2	12.33.22,5	3. 36. 16	10. 38,9	18,5	
3	Tu.	6. 10. 4. 12	12.37. 0,5	3. 59. 33	10. 57,4	18,2	
4	W.	6. 11. 3. 23	12.40.38,8	4. 22. 47	11. 15,6	17,8	
5	Th.	6. 12. 2. 36	12.44.17,4	4. 45. 58	11. 33,4	17,5	
6	F.	6. 13. 1. 51	12.47.56,5	5. 9. 5	11. 50,9	17,0	
7	Sa.	6. 14. 1. 8	12.51.35,9	5. 32. 8	12. 7,9	16,7	
8	Su.	6. 15. 0. 26	12.55.15,8	5. 55. 6	12. 24,6	16,3	
9	M.	6. 15. 59. 47	12.58.56,0	6. 18. 1	12. 40,9	15,8	
10	Tu.	6. 16. 59. 10	13. 2.36,7	6. 40. 50	12. 56,7	15,4	
11	W.	6. 17. 58. 35	13. 6.17,9	7. 3. 34	13. 12,1	14,8	
12	Th.	6. 18. 58. 2	13. 9.59,5	7. 26. 12	13. 26,9	14,4	
13	F.	6. 19. 57. 31	13.13.41,7	7. 48. 44	13. 41,3	13,8	
14	Sa.	6. 20. 57. 3	13.17.24,4	8. 11. 10	13. 55,1	13,2	
15	Su.	6. 21. 56. 37	13.21. 7,8	8. 33. 29	14. 8,3	12,6	
16	M.	6. 22. 56. 13	13.24.51,6	8. 55. 41	14. 20,9	12,0	
17	Tu.	6. 23. 55. 52	13.28.36,1	9. 17. 45	14. 32,9	11,4	
18	W.	6. 24. 55. 33	13.32.21,2	9. 39. 41	14. 44,3	10,8	
19	Th.	6. 25. 55. 17	13.36. 7,0	10. 1. 30	14. 55,1	10,1	
20	F.	6. 26. 55. 3	13.39.53,4	10. 23. 9	15. 5,2	9,5	
21	Sa.	6. 27. 54. 51	13.43.40,4	10. 44. 39	15. 14,7	8,8	
22	Su.	6. 28. 54. 42	13.47.28,2	11. 5. 59	15. 23,5	8,1	
23	M.	6. 29. 54. 34	13.51.16,6	11. 27. 10	15. 31,6	7,4	
24	Tu.	7. 0. 54. 29	13.55. 5,7	11. 48. 11	15. 39,0	6,7	
25	W.	7. 1. 54. 25	13.58.55,6	12. 9. 0	15. 45,7	6,0	
26	Th.	7. 2. 54. 23	14. 2.46,1	12. 29. 38	15. 51,7	5,3	
27	F.	7. 3. 54. 23	14. 6.37,4	12. 50. 5	15. 57,0	4,5	
28	Sa.	7. 4. 54. 25	14.10.29,4	13. 10. 19	16. 1,5	3,8	
29	Su.	7. 5. 54. 29	14.14.22,2	13. 30. 22	16. 5,3	3,1	
30	M.	7. 6. 54. 34	14.18.15,6	13. 50. 11	16. 8,4	2,3	
31	Tu.	7. 7. 54. 41	14.22. 9,9	14. 9. 46	16. 10,7		

III. OCTOBER 1775. [111]

Days of the Month.	Semidia- meter of the Sun.	Time of D ^o passing the Meridian.	Hourly Motion of the Sun.	Logarithm of the Sun's Distance.	Place of the Moon's Node.
	M. S.	M. S.	M. S.		S. D. M.
1	16. 2,8	1. 4,3	2. 27,8	0.000008	4. 22. 17
7	16. 4,5	1. 4,6	2. 28,4	9.999237	4. 21. 57
13	16. 6,0	1. 5,0	2. 28,9	9.998493	4. 21. 38
19	16. 7,7	1. 5,5	2. 29,3	9.997777	4. 21. 19
25	16. 9,4	1. 6,1	2. 29,8	9.997073	4. 21. 0

Eclipses of the SATELLITES of J U P I T E R.

I. Satellite. Immerfions.		II. Satellite.		III. Satellite.	
Days	H. M. S.	Days	H. M. S.	Days	H. M. S.
1	11*49.39	1	3.55.27 I	5	22.11.44 I
3	6.18.37	1	6.18.56 E	6	0.20.19 E
5	0.47.31	4	17*14.37 I	13	2.12.31 I
6	19.16.27	4	19.38.16 E	13	4.22.11 E
8	13*45.19	8	6.33.43 I	20	6.12.52 I
10	8.14.12	8	8.57.33 E	20	8.23.50 E
12	2.43.2	11	19.52.46 I	27	10*12.36 I
13	21.11.51	11	22.16.45 E	27	12*24.55 E
15	15*40.38	15	9*11.44 I	IV. Satellite. Conjunctions.	
17	10*9.24	15	11*35.54 E		
19	4.38.9	18	22.30.38 I	5	9*57.45 Inf.
20	23.6.49	22	11*49.28 I	13	20.36.56 Sup.
22	17*35.28	26	1.8.9 I	22	4.8.25 Inf.
24	12*4.6	29	14*26.40 I	30	14*48.16 Sup.
26	6.32.39				
28	1.1.12				
29	19.29.42				
31	13*58.12				

[112] OCTOBER 1775. IV.

Days.	Heliocen- tric Lon- gitude.	Heliocen- tric Lati- tude.	Geocen- tric Lon- gitude.	Geocen- tric Lati- tude.	Declina- tion.	Passage over Merid.
	S. D. M.	D. M.	S. D. M.	D. M.	D. M.	H. M.

MERCURY.

1	7. 22. 3	0. 46 S	6. 21. 33	0. 15 S	8. 39 S	0. 50
7	8. 8. 44	2. 44	7. 0. 43	0. 58	12. 39	1. 1
13	8. 25. 14	4. 27	7. 9. 25	1. 38	16. 12	1. 12
19	9. 12. 20	5. 50	7. 17. 36	2. 13	19. 14	1. 22
25	10. 0. 49	6. 45	7. 25. 3	2. 40	21. 38	1. 29

VENUS. Inf. δ 24^d. 3^h $\frac{1}{2}$.

1	11. 24. 9	3. 21 S	7. 8. 41	7. 2 S	21. 4 S	1. 46
7	0. 3. 41	3. 12	7. 8. 32	7. 23	21. 20	1. 23
13	0. 13. 15	2. 58	7. 6. 57	7. 24	20. 50	0. 54
19	0. 22. 49	2. 40	7. 4. 6	6. 59	19. 27	0. 21
25	1. 2. 25	2. 17	7. 0. 33	6. 5	17. 22	23. 40

MARS.

1	8. 21. 1	1. 0 S	7. 22. 30	0. 44 S	19. 8 S	2. 50
7	8. 24. 25	1. 6	7. 26. 45	0. 47	20. 13	2. 45
13	8. 27. 50	1. 11	8. 1. 2	0. 50	21. 12	2. 41
19	9. 1. 18	1. 16	8. 5. 22	0. 53	22. 5	2. 37
25	9. 4. 48	1. 21	8. 9. 44	0. 56	22. 51	2. 33

JUPITER.

1	2. 10. 39	0. 37 S	2. 21. 33	0. 40 S	22. 32 N	16. 51
7	2. 11. 10	0. 36	2. 21. 40	0. 40	22. 32	16. 30
13	2. 11. 42	0. 36	2. 21. 40	0. 40	22. 32	16. 8
19	2. 12. 13	0. 35	2. 21. 32	0. 40	22. 32	15. 45
25	2. 12. 45	0. 35	2. 21. 18	0. 40	22. 31	15. 21

SATURN. δ 4^d. 22^h.

1	6. 11. 49	2. 28 N	6. 11. 28	2. 14 N	2. 29 S	0. 16
7	6. 12. 1	2. 28	6. 12. 12	2. 14	2. 46	23. 54
13	6. 12. 13	2. 28	6. 12. 57	2. 14	3. 3	23. 34
19	6. 12. 25	2. 28	6. 13. 40	2. 15	3. 20	23. 14
25	6. 12. 37	2. 28	6. 14. 24	2. 15	3. 36	22. 54

V. OCTOBER 1775. [113]

Days of the Month.	Days of the Week.	Moon's Longitude at Noon.	Moon's Longitude at Midnight.	Moon's Latitude at Noon.	Moon's Latitude at Midn.
		S. D. M. S.	S. D. M. S.	D. M. S.	D. M. S.
1	Su.	8. 27. 14. 15	9. 4. 6. 42	4. 18. 28 N	3. 56. 11 N
2	M.	9. 11. 2. 44	9. 18. 2. 23	3. 30. 15	3. 0. 58
3	Tu.	9. 25. 5. 32	10. 2. 12. 11	2. 28. 40	1. 53. 53
4	W.	10. 9. 22. 10	10. 16. 35. 9	1. 17. 0 N	0. 38. 40 N
5	Th.	10. 23. 50. 51	11. 1. 8. 46	0. 0. 31 S	0. 39. 51 S
6	F.	11. 8. 28. 15	11. 15. 48. 45	1. 18. 36	1. 56. 6
7	Sa.	11. 23. 9. 22	0. 0. 29. 20	2. 31. 41	3. 4. 36
8	Su.	0. 7. 47. 37	0. 15. 3. 30	3. 34. 21	4. 0. 22
9	M.	0. 22. 15. 54	0. 29. 24. 12	4. 22. 21	4. 39. 59
10	Tu.	1. 6. 27. 31	1. 13. 25. 27	4. 53. 5	5. 1. 38
11	W.	1. 20. 17. 21	1. 27. 3. 9	5. 5. 40	5. 5. 21
12	Th.	2. 3. 42. 35	2. 10. 15. 43	5. 0. 52	4. 52. 28
13	F.	2. 16. 42. 46	2. 23. 4. 0	4. 40. 25	4. 25. 4
14	Sa.	2. 29. 19. 42	3. 5. 30. 26	4. 6. 42	3. 45. 42
15	Su.	3. 11. 36. 50	3. 17. 39. 22	3. 22. 19	2. 56. 55
16	M.	3. 23. 38. 41	3. 29. 35. 34	2. 29. 44	2. 1. 9
17	Tu.	4. 5. 30. 35	4. 11. 24. 34	1. 31. 22	1. 0. 44 S
18	W.	4. 17. 18. 2	4. 23. 11. 44	0. 29. 29 S	0. 2. 3 N
19	Th.	4. 29. 6. 20	5. 5. 2. 19	0. 33. 37 N	1. 4. 55
20	F.	5. 11. 0. 13	5. 17. 0. 41	1. 35. 39	2. 5. 29
21	Sa.	5. 23. 3. 57	5. 29. 10. 35	2. 34. 6	3. 1. 10
22	Su.	6. 5. 20. 42	6. 11. 34. 39	3. 26. 18	3. 49. 13
23	M.	6. 17. 52. 23	6. 24. 14. 54	4. 9. 34	4. 26. 58
24	Tu.	7. 0. 39. 42	7. 7. 9. 12	4. 41. 10	4. 51. 51
25	W.	7. 13. 42. 22	7. 20. 19. 14	5. 58. 48	5. 1. 49
26	Th.	7. 26. 59. 0	8. 3. 41. 58	5. 0. 45	4. 55. 32
27	F.	8. 10. 27. 43	8. 17. 15. 57	4. 46. 8	4. 32. 36
28	Sa.	8. 24. 6. 25	9. 0. 58. 59	4. 15. 7	3. 53. 48
29	Su.	9. 7. 53. 23	9. 14. 49. 31	3. 28. 57	3. 0. 56
30	M.	9. 21. 47. 12	9. 28. 46. 29	2. 30. 5	1. 56. 49
31	Tu.	10. 5. 47. 8	10. 12. 49. 10	1. 21. 44	0. 45. 15 N

[114]		OCTOBER 1775.				VI.	
Days of the Month.	Days of the Week.	D's Age.	D's Passage over Merid.	D's Right Ascen. at Noon.	D's Right Ascen. at Midn.	D's Declinat. at Noon.	D's Declination at Midn.
			H. M.	D. M.	D. M.	D. M.	D. M.
1	Su.	8	5. 31.	267. 5	274. 21	19. 8 S	19. 28 S
2	M.	9	6. 28	281. 42	289. 7	19. 31	19. 16
3	Tu.	10	7. 27	296. 34	304. 1	18. 42	17. 50
4	W.	11	8. 25	311. 27	318. 51	16. 41	15. 16
5	Th.	12	9. 21	326. 10	333. 26	13. 36	11. 42
6	F.	13	10. 17	340. 36	347. 42	9. 37	7. 23
7	Sa.	14	11. 11	354. 43	1. 40	5. 2	2. 38 S
8	Su.	15	12. 5	8. 34	15. 25	0. 11 S	2. 15 N
9	M.	16	12. 57	22. 13	29. 0	4. 37 N	6. 54
10	Tu.	17	13. 49	35. 45	42. 30	9. 4	11. 5
11	W.	18	14. 41	49. 14	55. 58	12. 55	14. 34
12	Th.	19	15. 33	62. 41	69. 23	15. 59	17. 11
13	F.	20	16. 24	76. 3	82. 42	18. 9	18. 52
14	Sa.	21	17. 14	89. 18	95. 50	19. 21	19. 36
15	Su.	22	18. 4	102. 19	108. 44	19. 36	19. 23
16	M.	23	18. 51	115. 4	121. 19	18. 56	18. 17
17	Tu.	24	19. 38	127. 29	133. 35	17. 26	16. 24
18	W.	25	20. 23	139. 36	145. 33	15. 12	13. 50
19	Th.	26	21. 7	151. 26	157. 17	12. 19	10. 41
20	F.	27	21. 51	163. 5	168. 52	8. 56	7. 4
21	Sa.	28	22. 35	174. 39	180. 27	5. 7	3. 6 N
22	Su.	29	23. 20	186. 16	192. 8	1. 2 N	3. 4 S
23	M.	30	6	198. 4	204. 5	3. 10 S	5. 16
24	Tu.	1	0. 6	210. 11	216. 25	7. 19	9. 19
25	W.	2	0. 54	222. 46	229. 15	11. 13	13. 0
26	Th.	3	1. 44	235. 53	242. 39	14. 37	16. 5
27	F.	4	2. 37	249. 34	256. 37	17. 19	18. 20
28	Sa.	5	3. 33	263. 47	271. 2	19. 5	19. 34
29	Su.	6	4. 29	278. 22	285. 45	19. 45	19. 39
30	M.	7	5. 27	293. 7	300. 29	19. 14	18. 31
31	Tu.	8	6. 23	307. 49	315. 4	17. 31	16. 16

VII. OCTOBER 1775. [115]

Days of the Month.	Days of the Week.	Semid ^r . D at Noon.	Semid ^r . D at Mid-night.	Hor. Par. D at Noon.	Hor. Par. D at Midnight.	Propor. Lo- gar. at Noon.	Propor. Lo- gar. at Midn.
1	Su.	15. 55	16. 0	58. 25	58. 42	4887	4866
2	M.	16. 4	16. 9	58. 59	59. 16	4845	4824
3	Tu.	16. 13	16. 17	59. 32	59. 46	4805	4788
4	W.	16. 21	16. 24	59. 59	60. 10	4772	4759
5	Th.	16. 26	16. 28	60. 19	60. 26	4746	4740
6	F.	16. 29	16. 29	60. 29	60. 28	4736	4737
7	Sa.	16. 28	16. 26	60. 25	60. 17	4741	4751
8	Su.	16. 23	16. 19	60. 7	59. 53	4763	4779
9	M.	16. 14	16. 9	59. 35	59. 15	4801	4826
10	Tu.	16. 3	15. 56	58. 53	58. 29	4853	4882
11	W.	15. 50	15. 43	58. 5	57. 39	4912	4945
12	Th.	15. 36	15. 29	57. 14	56. 49	4976	5008
13	F.	15. 22	15. 16	56. 25	56. 3	5038	5067
14	Sa.	15. 11	15. 5	55. 42	55. 23	5094	5119
15	Su.	15. 1	14. 57	55. 7	54. 53	5140	5158
16	M.	14. 54	14. 52	54. 41	54. 32	5174	5186
17	Tu.	14. 50	14. 49	54. 25	54. 22	5195	5199
18	W.	14. 48	14. 49	54. 20	54. 21	5202	5201
19	Th.	14. 49	14. 51	54. 24	54. 30	5197	5189
20	F.	14. 53	14. 56	54. 37	54. 47	5179	5166
21	Sa.	14. 59	15. 2	54. 58	55. 10	5152	5136
22	Su.	15. 6	15. 10	55. 24	55. 38	5118	5099
23	M.	15. 14	15. 18	55. 54	56. 10	5079	5058
24	Tu.	15. 23	15. 27	56. 26	56. 42	5037	5017
25	W.	15. 31	15. 35	56. 58	57. 14	4996	4976
26	Th.	15. 40	15. 44	57. 29	57. 43	4957	4940
27	F.	15. 47	15. 51	57. 57	58. 10	4922	4906
28	Sa.	15. 55	15. 58	58. 23	58. 35	4890	4875
29	Su.	16. 1	16. 3	58. 45	58. 54	4863	4852
30	M.	16. 6	16. 8	59. 4	59. 13	4839	4828
31	Tu.	16. 10	16. 12	59. 20	59. 26	4820	4812

Distances of γ 's Center from Stars, and from $\odot$ east of her.

Days	Stars Names.	Noon.	3 Hours.	6 Hours.	9 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1	β Capri- corni.	33. 34. 26	31. 52. 9	30. 9. 41	28. 27. 1
2		19. 50. 59			
2	α Pegasi.	69. 20. 38	67. 44. 37	66. 8. 33	64. 32. 29
3		56. 33. 16	54. 57. 53	53. 22. 46	51. 47. 58
4		44. 1. 7	42. 29. 48	40. 59. 27	39. 30. 12
5	α Arietis.	70. 59. 12	69. 13. 35	67. 27. 58	65. 42. 21
6		56. 55. 9	55. 10. 5	53. 25. 13	51. 40. 35
7		43. 3. 0			
7	Aldeba- ran.	73. 20. 36	71. 30. 16	69. 40. 3	67. 49. 57
8		58. 41. 25	56. 52. 11	55. 3. 9	53. 14. 20
9		44. 13. 58	42. 26. 41	40. 39. 42	38. 53. 2
10		30. 4. 41	28. 20. 2	26. 35. 45	24. 51. 50
11		16. 18. 9			
11	Pollux.	60. 52. 7	59. 12. 19	57. 32. 57	55. 54. 3
12		47. 46. 40	46. 10. 39	44. 35. 9	43. 0. 11
13		35. 13. 36			
13	Regulus.	70. 6. 19	68. 30. 43	66. 55. 27	65. 20. 32
14		57. 30. 51	55. 57. 49	54. 25. 4	52. 52. 35
15		45. 13. 58	43. 42. 57	42. 12. 8	40. 41. 31
16		33. 11. 9			
13	The Sun.			120. 11. 58	118. 44. 49
14		111. 33. 51	110. 8. 33	108. 43. 32	107. 18. 47
15		100. 18. 42	98. 55. 23	97. 32. 16	96. 9. 22
16		89. 17. 35	87. 55. 41	86. 33. 54	85. 12. 14
17		78. 25. 32	77. 4. 25	75. 43. 20	74. 22. 18
18		67. 37. 34	66. 16. 38	64. 55. 41	63. 34. 42
19		56. 49. 3	55. 27. 45	54. 6. 22	52. 44. 54
20		45. 56. 7	44. 34. 1	43. 11. 47	41. 49. 26
26	α Aquilæ.	62. 53. 45	61. 28. 5	60. 2. 41	58. 37. 37
27		51. 38. 46			
27	β Capri- corni.	50. 16. 15	48. 34. 55	46. 53. 27	45. 11. 50
28		36. 41. 39	34. 59. 12	33. 16. 39	31. 34. 0
29		22. 59. 34			
29	α Pegasi.	72. 19. 22	70. 43. 46	69. 8. 11	67. 32. 42
30		59. 37. 13	58. 2. 43	56. 28. 29	54. 54. 35
31		47. 11. 44	45. 40. 55	44. 10. 54	42. 41. 45
N. 1		35. 33. 38			

IX. OCTOBER 1775. [117]

Distances of J's Center from Stars, and from ☉ east of her.

Days.	Stars Names.	12 Hours.	15 Hours.	18 Hours.	21 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1	♄ Capric.	26. 44. 9	25. 1. 6	23. 17. 54	21. 34. 31
2		62. 56. 26	61. 20. 28	59. 44. 35	58. 8. 50
3	α Pegasi.	50. 13. 33	48. 39. 34	47. 6. 6	45. 33. 15
4		38. 2. 10			
4		78. 0. 56	76. 15. 40	74. 30. 15	72. 44. 46
5	α Arietis.	63. 56. 45	62. 11. 11	60. 25. 43	58. 40. 23
6		49. 56. 16	48. 12. 18	46. 28. 45	44. 45. 38
7		65. 59. 57	64. 10. 5	62. 20. 22	60. 30. 49
8	Aldeba-	51. 25. 44	49. 37. 24	47. 49. 19	46. 1. 31
9	ran.	37. 6. 40	35. 20. 39	33. 34. 59	31. 49. 40
10		23. 8. 18	21. 25. 9	19. 42. 24	18. 0. 4
11	Pollux.	54. 15. 37	52. 37. 39	51. 0. 10	49. 23. 10
12		41. 25. 45	39. 51. 51	38. 18. 32	36. 45. 47
13		63. 45. 58	62. 11. 44	60. 37. 47	59. 4. 10
14	Regulus.	51. 20. 23	49. 48. 25	48. 16. 42	46. 45. 13
15		39. 11. 6	37. 40. 52	36. 10. 48	34. 40. 54
13		117. 18. 0	115. 51. 30	114. 25. 19	112. 59. 26
14		105. 54. 18	104. 30. 3	103. 6. 2	101. 42. 15
15		94. 46. 40	93. 24. 9	92. 1. 48	90. 39. 37
16	The Sun.	83. 50. 42	82. 29. 17	81. 7. 57	79. 46. 42
17		73. 1. 19	71. 40. 22	70. 19. 25	68. 58. 29
18		62. 13. 41	60. 52. 37	59. 31. 29	58. 10. 18
19		51. 23. 21	50. 1. 42	48. 39. 57	47. 18. 5
20		40. 26. 58	39. 4. 22		
25	α Aquilæ.	68. 38. 21	67. 12. 0	65. 45. 46	64. 19. 40
26		57. 12. 54	55. 48. 36	54. 24. 46	53. 1. 28
27	β Capri-	43. 30. 4	41. 48. 9	40. 6. 7	38. 23. 57
28	corni.	29. 51. 15	28. 8. 25	26. 25. 31	24. 42. 35
29		65. 57. 17	64. 22. 0	62. 46. 53	61. 11. 57
30	α Pegasi.	53. 21. 3	51. 47. 57	50. 15. 19	48. 43. 13
31		41. 13. 36	39. 46. 35	38. 20. 50	36. 56. 28

[118] OCTOBER 1775. X.

Distances of J's Center from ☉, and from Stars west of her.

Days.	Stars Names.	Noon.	3 Hours.	6 Hours.	9 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1	The Sun.	79. 10. 13	80. 45. 16	82. 20. 33	83. 56. 5
2		91. 57. 29	93. 34. 31	95. 11. 47	96. 49. 17
3		105. 0. 29	106. 39. 26	108. 18. 37	109. 58. 1
4		118. 18. 19	119. 58. 59	121. 39. 49	
2	Antares.	35. 18. 59	36. 59. 22	38. 40. 19	40. 21. 47
3		48. 55. 54	50. 39. 56	52. 24. 19	54. 9. 3
4		62. 57. 22	64. 43. 52	66. 30. 36	68. 17. 34
5	β Capri- corni.	23. 22. 9	25. 11. 13	27. 0. 28	28. 49. 56
6		37. 59. 15	39. 49. 25	41. 39. 37	43. 29. 51
7		52. 41. 2			
7	α Aquilæ.	61. 4. 26	62. 39. 0	64. 13. 56	65. 49. 13
8		73. 48. 54	75. 25. 14	77. 1. 33	78. 37. 52
9		86. 37. 59			
9	Fomal- haut.	52. 43. 9	54. 19. 50	55. 56. 43	57. 33. 43
10		65. 38. 50	67. 15. 40	68. 52. 21	70. 28. 52
11	α Pegasi.	63. 48. 48	65. 21. 32	66. 54. 9	68. 26. 36
12		76. 5. 54	77. 37. 3	79. 7. 56	80. 38. 31
13	α Arietis.	44. 29. 36	45. 58. 48	47. 28. 0	48. 57. 10
14		56. 21. 50	57. 50. 28	59. 18. 57	60. 47. 18
15	Aldeba- ran.	34. 54. 37	36. 25. 37	37. 56. 26	39. 27. 2
16		46. 57. 22	48. 26. 59	49. 56. 28	51. 25. 50
17		58. 51. 9	60. 20. 1	61. 48. 50	63. 17. 37
18		70. 41. 9			
18	Pollux.	28. 2. 49	29. 26. 18	30. 50. 13	32. 14. 33
19		39. 21. 30	40. 47. 46	42. 14. 17	43. 41. 3
20		50. 58. 24			
20	Regulus.	14. 20. 10	15. 50. 20	17. 20. 38	18. 51. 5
21		26. 25. 47	27. 57. 17	29. 28. 59	31. 0. 54
22		38. 43. 22	40. 16. 30	41. 49. 51	43. 23. 27
27	The Sun.			39. 55. 51	41. 29. 25
28		49. 20. 10	50. 54. 52	52. 29. 44	54. 4. 47
29		62. 2. 17	63. 38. 14	65. 14. 19	66. 50. 32
30		74. 53. 31	76. 30. 31	78. 7. 37	79. 44. 59
31		87. 52. 29	89. 30. 19	91. 8. 15	92. 46. 16
N.1		100. 57. 39			
31	Antares.	59. 24. 5	61. 7. 57	62. 51. 58	64. 36. 6
N.1		73. 18. 47			

XI. OCTOBER 1775. [119]

Distances of γ 's Center from $\odot$, and from Stars west of her.

Days.	Stars Names.	12 Hours.	15 Hours.	18 Hours.	21 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1	The Sun.	85. 31. 52	87. 7. 54	88. 44. 11	90. 20. 43
2		98. 27. 3	100. 5. 3	101. 43. 17	103. 21. 46
3		111. 37. 39	113. 17. 30	114. 57. 34	116. 37. 50
1	Antares.	28. 44. 13	30. 21. 46	32. 0. 7	33. 39. 13
2		42. 3. 44	43. 46. 9	45. 29. 0	47. 12. 15
3		55. 54. 7	57. 39. 29	59. 25. 10	61. 11. 7
4		70. 4. 47			
4	β Capricorni.	16. 8. 48	17. 56. 40	19. 44. 51	21. 33. 21
5		30. 39. 35	32. 29. 20	34. 19. 12	36. 9. 10
6		45. 20. 8	47. 10. 24	49. 0. 39	50. 50. 53
7	α Aquilæ.	67. 24. 45	69. 0. 33	70. 36. 31	72. 12. 38
8		80. 14. 10	81. 50. 22	83. 26. 25	85. 2. 17
9	Fomalhaut.	59. 10. 47	60. 47. 52	62. 24. 56	64. 1. 55
10		72. 5. 10			
10	α Pegasi.	57. 37. 9	59. 10. 7	60. 43. 4	62. 15. 58
11		69. 58. 55	71. 31. 0	73. 2. 51	74. 34. 30
12		82. 8. 50			
12	α Arietis.	38. 33. 39	40. 2. 25	41. 31. 22	43. 0. 26
13		50. 26. 17	51. 55. 19	53. 24. 15	54. 53. 5
14		62. 15. 31			
14	Aldebaran.	28. 48. 14	30. 20. 11	31. 51. 54	33. 23. 23
15		40. 57. 27	42. 27. 40	43. 57. 44	45. 27. 38
16		52. 55. 5	54. 24. 13	55. 53. 16	57. 22. 15
17		64. 46. 21	66. 15. 4	67. 43. 46	69. 12. 28
18	Pollux.	33. 39. 15	35. 4. 20	36. 29. 44	37. 55. 28
19		45. 8. 4	46. 35. 19	48. 2. 48	49. 30. 29
20	Regulus.	20. 21. 41	21. 52. 27	23. 23. 23	24. 54. 30
21		32. 32. 59	34. 5. 16	35. 37. 45	37. 10. 28
22		44. 57. 16			
27	The Sun.	43. 3. 11	44. 37. 9	46. 11. 18	47. 45. 38
28		55. 39. 59	57. 15. 20	58. 50. 50	60. 26. 29
29		68. 26. 53	70. 3. 21	71. 39. 57	73. 16. 40
30		81. 22. 10	82. 59. 35	84. 37. 7	86. 14. 45
31		94. 24. 23	96. 2. 35	97. 40. 51	99. 19. 13
31		66. 20. 23	68. 4. 47	69. 49. 19	71. 33. 59

[120]

OCTOBER 1775.

XII.

Configurations of the SATELLITES of JUPITER

at 10 o' th' Clock in the Evening.

1	4.			2.	1.	
2	.4	.2	.3.1	1		
3	1	.4		1	.3	
4		.4		1	2.	3.
5		2. 1.	.4	1	3.	
6			2. 1.	1	.4.1	
7		3.	.1	1	.2	.4
8	2	.3		1.		.4
9		.2	.3.1	1		.4
10	1			1	.2	.3
11				1	.1	2.
12		2. 1.		1	3.	4.
13	3		.2	1	.1	4.
14		3.	1.	4.	1	.2
15	2	.3	4.	1		
16		.4	2.	.3.1	1	
17	.4.			1	.2	.3
18	.4.			1	2.	.3
19	.4		2.1.	1	3.	
20		.4	.2	3.	.1	
21		3.	1.	1		
22		.4		1	2. 1.	.2
23		.3	.4	1		
24	2.0			1.	.3	.4
25				.1	2.	.3
26	1		2.	1	3.	.4
27		.2		3.	.1	4.
28		3.	1.	1	.2	4.
29		3.		1	2.	.4
30		2.	.3	.1	1	
31			.4.	2.	.3	1.

I. NOVEMBER 1775. [121]

Days of the Month.	Days of the Week.	Sundays, Holidays, &c.	Phases of the Moon.	
			D. H. M.	
			Full Moon	— 7. 0. 28
			Last Quarter	— 14. 19. 14
			New Moon	— 22. 14. 25
			First Quarter	— 29. 11. 29
			Other Phenomena.	
			D.	
			2. $\text{C} \lambda \approx 7^h. 22'.$	
			$\text{C} \phi \approx 16^h. 49'.$	
			5. $\text{J} \theta$ Ophi. diff. Lat. $48'.$	
			6. $\text{C} 2 \text{ ad } \xi$ Ceti, Im. $5^h.$	
			$10'.$ * $11\frac{1}{2} S.$ of $\text{D}'s$	
			cent. Em. $5^h. 48\frac{1}{2}.$	
			* $11\frac{1}{2} S.$	
			$\text{C} \mu$ Ceti, Im. $14^h. 23\frac{1}{2}.$	
			* $9\frac{1}{4} S.$ of $\text{D}'s$ cent.	
			Em $15^h. 18'.$ * $10' S.$	
			$\text{J} \theta$ B Ophi. diff. Lat. $6'.$	
			8. $\text{C} \gamma \delta$ Im. $6^h. 33\frac{1}{2}.$ *	
			$0\frac{1}{4} S.$ of $\text{D}'s$ cent.	
			Em. $7^h. 27'.$ * $3' S.$	
			$\text{C} 1 \text{ ad } \delta \gamma 9^h. 45'.$	
			$\text{C} 2 \text{ ad } \delta \gamma 10^h. 12'.$	
			$\text{C} a \gamma$ Im. $15^h. 20'.$ *	
			$10' S.$ of $\text{D}'s$ cent.	
			Em. $16^h. 16'.$ * $10\frac{1}{4} S.$	
			$\text{J} \theta$ Stationary.	
			10. $\text{C} \nu \Pi 17^h. 23'.$	
			11. $\text{C} \zeta \Pi 9^h. 12'.$	
			14. $\text{J} \theta$ Stationary.	
			$\text{C} \nu \Omega 22^h. 7'.$	
			15. $\text{C} a \Omega 3^h. 13'.$	
			16. $\text{C} \chi \Omega 9^h. 0'.$	
			$\text{C} \sigma \Omega$ Im. $15^h. 25'.$ *	
			$0\frac{1}{4} S.$ of $\text{D}'s$ cent.	
			Em. $16^h. 37'.$ * $1' S.$	
			18. $\text{C} \gamma \text{M} 11^h. 48'.$	
			21. $\odot$ enters I at $22^h. 20'.$	
			29. $\text{C} \lambda \approx 12^h. 51'.$	

[122] NOVEMBER 1775. II.

Days of the Month.	Days of the Week.	Sun's Longitude.	Sun's Right Asc. in Time.	Sun's Declin. South.	Equat. of Time. Sub.	Diff.
		S. D. M. S.	H. M. S.	D. M. S.	M. S.	S.
1	W.	7. 8. 54. 49	14. 26. 5. 0	14. 29. 7	16. 12. 2	0, 7
2	Th.	7. 9. 54. 58	14. 30. 0. 8	14. 48. 15	16. 12. 9	0, 1
3	F.	7. 10. 55. 10	14. 33. 57. 4	15. 7. 8	16. 12. 8	0, 8
4	Sa.	7. 11. 55. 23	14. 37. 54. 8	15. 25. 47	16. 12. 0	1, 7
5	Su.	7. 12. 55. 37	14. 41. 53. 0	15. 44. 10	16. 10. 3	2, 5
6	M.	7. 13. 55. 52	14. 45. 52. 0	16. 2. 17	16. 7. 8	3, 3
7	Tu.	7. 14. 56. 10	14. 49. 51. 9	16. 20. 7	16. 4. 5	4, 1
8	W.	7. 15. 56. 29	14. 53. 52. 6	16. 37. 42	16. 0. 4	4, 9
9	Th.	7. 16. 56. 50	14. 57. 54. 1	16. 55. 0	15. 55. 5	5, 9
10	F.	7. 17. 57. 13	15. 1. 56. 6	17. 12. 0	15. 49. 6	6, 7
11	Sa.	7. 18. 57. 38	15. 5. 59. 8	17. 28. 44	15. 42. 9	7, 5
12	Su.	7. 19. 58. 4	15. 10. 3. 9	17. 45. 8	15. 35. 4	8, 4
13	M.	7. 20. 58. 33	15. 14. 8. 9	18. 1. 15	15. 27. 0	9, 4
14	Tu.	7. 21. 59. 3	15. 18. 14. 9	18. 17. 2	15. 17. 6	10, 2
15	W.	7. 22. 59. 35	15. 22. 21. 0	18. 32. 30	15. 7. 4	11, 0
16	Th.	7. 24. 0. 10	15. 26. 29. 3	18. 47. 39	14. 56. 4	11, 9
17	F.	7. 25. 0. 46	15. 30. 37. 7	19. 2. 28	14. 44. 5	12, 7
18	Sa.	7. 26. 1. 24	15. 34. 47. 1	19. 16. 56	14. 31. 8	13, 6
19	Su.	7. 27. 2. 4	15. 38. 57. 3	19. 31. 3	14. 18. 2	14, 5
20	M.	7. 28. 2. 46	15. 43. 8. 3	19. 44. 50	14. 3. 7	15, 3
21	Tu.	7. 29. 3. 29	15. 47. 20. 2	19. 58. 14	13. 48. 4	16, 0
22	W.	8. 0. 4. 13	15. 51. 32. 8	20. 11. 17	13. 32. 4	16, 8
23	Th.	8. 1. 4. 59	15. 55. 46. 3	20. 23. 57	13. 15. 6	17, 6
24	F.	8. 2. 5. 47	16. 0. 0. 5	20. 36. 15	12. 58. 0	18, 5
25	Sa.	8. 3. 6. 35	16. 4. 15. 5	20. 48. 10	12. 39. 5	19, 1
26	Su.	8. 4. 7. 25	16. 8. 31. 2	20. 59. 41	12. 20. 4	19, 8
27	M.	8. 5. 8. 16	16. 12. 47. 7	21. 10. 49	12. 0. 6	20, 6
28	Tu.	8. 6. 9. 7	16. 17. 4. 8	21. 21. 32	11. 40. 0	21, 2
29	W.	8. 7. 10. 0	16. 21. 22. 7	21. 31. 51	11. 18. 8	21, 9
30	Th.	8. 8. 10. 53	16. 25. 41. 2	21. 41. 47	10. 56. 9	22, 5

III. NOVEMBER 1775. [123]

Days.	Semidia- meter of the Sun.	Time of D ^o passing the Meridian.	Hourly Motion of the Sun.	Logarithm of the Sun's Distance.	Place of the Moon's Node.
	M. S.	M. S.	M. S.		S. D. M.
1	16. 11, 1	1. 6, 9	2. 30, 3	9. 996260	4. 20. 38
7	16. 12, 6	1. 7, 6	2. 30, 8	9. 995606	4. 20. 19
13	16. 13, 8	1. 8, 3	2. 31, 2	9. 995021	4. 20. 0
19	16. 15, 0	1. 9, 0	2. 31, 7	9. 994499	4. 19. 41
25	16. 16, 1	1. 9, 6	2. 32, 0	9. 994020	4. 19. 22

Eclipses of the SATELLITES of JUPITER.

I. Satellite. Immersions.		II. Satellite. Immersions.		III. Satellite. Immersions.	
Days	H. M. S.	Days	H. M. S.	Days	H. M. S.
2	8*26. 37	2	3. 45. 10	3	14*11. 53
4	2. 55. 4	5	17* 3. 29	10	18*10. 29
5	21. 23. 24	9	6. 21. 41	17	22. 8. 23
7	15*51. 47	12	19. 39. 48	25	2. 5. 39
9	10*20. 3	16	8*57. 41	IV. Satellite. Conj.	
11	4. 48. 20	19	22. 15. 24		
12	23. 16. 32	23	11*33. 3	7	22. 16 Inf.
14	17*44. 44	27	0. 50. 34	16	8*56 Sup.
16	12*12. 51	30	14* 7. 58	24	16*20 Inf.
18	6*41. 0				
20	1. 9. 3				
21	19. 37. 3				
23	14* 5. 3				
25	8*32. 57				
27	3. 0. 51				
28	21. 28. 46				
30	15*56. 38				

[124] NOVEMBER 1775. IV.

Days.	Heliocen- tric Lon- gitude.	Heliocen- tric Lati- tude.	Geocen- tric Lon- gitude.	Geocen- tric La- titude.	Declina- tion.	Passage over Merid.
	S. D. M.	D. M.	S. D. M.	D. M.	D. M.	H. M.

MERCURY. Inf. δ 19^d. 4^h.

1	10. 25. 28	6. 53 S	8. 2. 8	2. 51 S	23. 24 S	1. 31
7	11. 20. 40	5. 45	8. 5. 30	2. 29	23. 42	1. 22
13	0. 20. 52	2. 58 S	8. 4. 12	1. 21 S	22. 20	0. 53
19	1. 26. 11	1. 16 N	7. 27. 26	0. 36 N	19. 2	0. 2
25	3. 3. 55	5. 13	7. 20. 43	2. 11	15. 51	23. 6

V E N U S.

1	1. 13. 37	1. 45 S	6. 26. 35	4. 33 S	14. 29 S	23. 1
7	1. 23. 15	1. 14	6. 24. 11	3. 1	12. 12	22. 31
13	2. 2. 54	0. 41	6. 23. 14	1. 33	10. 29	22. 6
19	2. 12. 34	0. 7 S	6. 23. 41	0. 15 S	9. 26	21. 46
25	2. 22. 15	0. 27 N	6. 25. 31	0. 50 N	9. 6	21. 29

M A R S.

1	9. 8. 56	1. 26 S	8. 14. 54	0. 58 S	23. 34 S	2. 27
7	9. 12. 30	1. 30	8. 19. 22	1. 0	24. 3	2. 23
13	9. 16. 5	1. 34	8. 23. 51	1. 2	24. 22	2. 19
19	9. 19. 43	1. 38	8. 28. 23	1. 4	24. 32	2. 14
25	9. 23. 22	1. 41	9. 2. 57	1. 5	24. 31	2. 9

J U P I T E R.

1	2. 13. 21	0. 34 S	2. 20. 51	0. 40 S	22. 29 N	14. 52
7	2. 13. 53	0. 33	2. 20. 22	0. 40	22. 27	14. 26
13	2. 14. 24	0. 33	2. 19. 47	0. 39	22. 26	13. 59
19	2. 14. 55	0. 32	2. 19. 7	0. 39	22. 23	13. 31
25	2. 15. 27	0. 31	2. 18. 22	0. 38	22. 20	13. 3

S A T U R N.

1	6. 12. 51	2. 28 N	6. 15. 13	2. 16 N	3. 55 S	22. 30
7	6. 13. 2	2. 29	6. 15. 54	2. 16	4. 10	22. 9
13	6. 13. 14	2. 29	6. 16. 34	2. 17	4. 25	21. 47
19	6. 13. 26	2. 29	6. 17. 12	2. 18	4. 38	21. 24
25	6. 13. 38	2. 29	6. 17. 48	2. 19	4. 51	21. 1

V. NOVEMBER 1775. [125]

Days of the Month.	Days of the Week.	Moon's Longitude at Noon.	Moon's Longitude at Midnight.	Moon's Latitude at Noon.	Moon's Latitude at Midnight.
		S. D. M. S.	S. D. M. S.	D. M. S.	D. M. S.
1	W.	10. 19. 52. 28	10. 26. 57. 3	0. 7. 59 N	0. 29. 31 S
2	Th.	11. 4. 2. 40	11. 11. 9. 12	1. 6. 38 S	1. 42. 46
3	F.	11. 18. 16. 20	11. 25. 23. 45	2. 17. 20	2. 49. 41
4	Sa.	0. 2. 31. 3	0. 9. 37. 43	3. 19. 21	3. 45. 50
5	Su.	0. 16. 43. 14	0. 23. 46. 58	4. 8. 45	4. 27. 43
6	M.	1. 0. 48. 19	1. 7. 46. 42	4. 42. 28	4. 52. 52
7	Tu.	1. 14. 41. 29	1. 21. 32. 12	4. 58. 51	5. 0. 26
8	W.	1. 28. 18. 19	2. 4. 59. 31	4. 57. 46	4. 51. 1
9	Th.	2. 11. 35. 35	2. 18. 6. 22	4. 40. 25	4. 26. 14
10	F.	2. 24. 31. 52	3. 0. 52. 12	4. 8. 50	3. 48. 32
11	Sa.	3. 7. 7. 31	3. 13. 18. 22	3. 25. 43	3. 0. 42
12	Su.	3. 19. 24. 56	3. 25. 27. 44	2. 33. 51	2. 5. 30
13	M.	4. 1. 27. 28	4. 7. 24. 40	1. 35. 57	1. 5. 34
14	Tu.	4. 13. 20. 3	4. 19. 14. 15	0. 34. 33 S	0. 3. 19 S
15	W.	4. 25. 7. 58	5. 1. 1. 58	0. 27. 56 N	0. 58. 55 N
16	Th.	5. 6. 56. 51	5. 12. 53. 26	1. 29. 18	1. 58. 54
17	F.	5. 18. 52. 19	5. 24. 54. 5	2. 27. 19	2. 54. 20
18	Sa.	6. 0. 59. 20	6. 7. 8. 43	3. 19. 34	3. 42. 45
19	Su.	6. 13. 22. 24	6. 19. 40. 54	4. 3. 31	4. 21. 37
20	M.	6. 26. 4. 26	7. 2. 33. 12	4. 36. 39	4. 48. 17
21	Tu.	7. 9. 7. 3	7. 15. 46. 44	5. 56. 18	5. 0. 24
22	W.	7. 22. 29. 54	7. 29. 18. 19	5. 0. 23	4. 56. 8
23	Th.	8. 6. 10. 48	8. 13. 7. 34	4. 47. 33	4. 34. 39
24	F.	8. 20. 6. 19	8. 27. 8. 24	4. 17. 30	3. 56. 19
25	Sa.	9. 4. 11. 45	9. 11. 16. 52	3. 31. 24	3. 3. 8
26	Su.	9. 18. 22. 46	9. 25. 29. 12	2. 31. 56	1. 58. 16
27	M.	10. 2. 35. 16	10. 9. 41. 8	1. 22. 45	0. 45. 55 N
28	Tu.	10. 16. 46. 21	10. 23. 50. 55	0. 8. 25 N	0. 29. 11 S
29	W.	11. 0. 54. 30	11. 7. 57. 21	1. 6. 14 S	1. 42. 15
30	Th.	11. 14. 58. 25	11. 21. 58. 34	2. 16. 34	2. 48. 45

Days of the Month.	Days of the Week.	D's Age.	D's Passage over Merid.	D's Right Ascen. at Noon.	D's Right Asc. at Midn.	D's Declination at Noon.	D's Declination at Midn.
			H. M.	D. M.	D. M.	D. M.	D. M.
1	W.	9	7. 19	322. 15	329. 21	14. 45 S	13. 0 S
2	Th.	10	8. 13	336. 21	343. 16	11. 4	8. 59
3	F.	11	9. 5	350. 7	356. 54	6. 45	4. 26 S
4	Sa.	12	9. 57	3. 38	10. 20	2. 3 S	0. 21 N
5	Su.	13	10. 48	17. 0	23. 40	2. 45 N	5. 6
6	M.	14	11. 40	30. 20	37. 1	7. 21	9. 30
7	Tu.	15	12. 31	43. 43	50. 27	11. 30	13. 20
8	W.	16	13. 23	57. 12	63. 57	14. 58	16. 23
9	Th.	17	14. 15	70. 43	77. 29	17. 34	18. 31
10	F.	18	15. 7	84. 13	90. 55	19. 13	19. 40
11	Sa.	19	15. 56	97. 34	104. 8	19. 51	19. 48
12	Su.	20	16. 45	110. 38	117. 2	19. 31	19. 1
13	M.	21	17. 32	123. 20	129. 32	18. 18	17. 23
14	Tu.	22	18. 18	135. 38	141. 39	16. 17	15. 1
15	W.	23	19. 2	147. 35	153. 26	13. 36	12. 2
16	Th.	24	19. 45	159. 14	165. 0	10. 21	8. 33
17	F.	25	20. 28	170. 44	176. 29	6. 40	4. 42
18	Sa.	26	21. 12	182. 14	188. 2	2. 39 N	0. 34 N
19	Su.	27	21. 57	193. 53	199. 49	1. 33 S	3. 40 S
20	M.	28	22. 43	205. 51	212. 1	5. 47	7. 52
21	Tu.	29	23. 33	218. 19	224. 47	9. 52	11. 47
22	W.	1	0	231. 24	238. 12	13. 34	15. 12
23	Th.	2	0. 26	245. 10	252. 18	16. 38	17. 52
24	F.	3	1. 21	259. 34	266. 58	18. 50	19. 30
25	Sa.	4	2. 19	274. 27	282. 0	19. 52	19. 57
26	Su.	5	3. 17	289. 33	297. 5	19. 42	19. 8
27	M.	6	4. 15	304. 33	311. 55	18. 16	17. 7
28	Tu.	7	5. 11	319. 11	326. 20	15. 42	14. 3
29	W.	8	6. 5	333. 22	340. 16	12. 12	10. 11
30	Th.	9	6. 56	347. 3	353. 45	8. 1	5. 46

VII. NOVEMBER 1775. [127]

Days of the Month.	Days of the Week.	Semidr. D at Noon.	Semidr. D at Mid-night.	Hor. Par. D at Noon.	Hor. Par. D at Midnight.	Gar. at Noon.	Proport. Lo. Gar. at Midn.
		M. S.	M. S.	M. S.	M. S.		
1	W.	16. 13	16. 14	59. 32	59. 36	4805	4800
2	Th.	16. 15	16. 15	59. 38	59. 39	4798	4797
3	F.	16. 15	16. 14	59. 38	59. 35	4798	4801
4	Sa.	16. 13	16. 11	59. 30	59. 23	4808	4816
5	Su.	16. 8	16. 5	59. 14	59. 2	4827	4842
6	M.	16. 2	15. 57	58. 49	58. 33	4858	4877
7	Tu.	15. 53	15. 47	58. 16	57. 57	4898	4922
8	W.	15. 42	15. 36	57. 38	57. 17	4946	4972
9	Th.	15. 31	15. 25	56. 56	56. 35	4999	5026
10	F.	15. 20	15. 14	56. 15	55. 56	5051	5076
11	Sa.	15. 10	15. 5	55. 38	55. 21	5099	5122
12	Su.	15. 1	14. 57	55. 6	54. 53	5141	5158
13	M.	14. 54	14. 52	54. 43	54. 34	5171	5183
14	Tu.	14. 51	14. 50	54. 29	54. 26	5190	5194
15	W.	14. 49	14. 50	54. 25	54. 27	5195	5193
16	Th.	14. 51	14. 53	54. 31	54. 38	5187	5178
17	F.	14. 56	14. 59	54. 48	54. 59	5165	5150
18	Sa.	15. 2	15. 7	55. 13	55. 29	5132	5111
19	Su.	15. 12	15. 17	55. 46	56. 5	5089	5064
20	M.	15. 22	15. 28	56. 24	56. 45	5040	5013
21	Tu.	15. 33	15. 39	57. 5	57. 26	4987	4961
22	W.	15. 44	15. 50	57. 46	58. 5	4936	4912
23	Th.	15. 54	15. 59	58. 22	58. 38	4891	4871
24	F.	16. 2	16. 6	58. 53	59. 5	4853	4838
25	Sa.	16. 8	16. 11	59. 16	59. 24	4824	4815
26	Su.	16. 13	16. 14	59. 30	59. 33	4808	4804
27	M.	16. 15	16. 14	59. 36	59. 36	4800	4800
28	Tu.	16. 14	16. 13	59. 35	59. 32	4801	4805
29	W.	16. 13	16. 11	59. 28	59. 23	4810	4816
30	Th.	16. 9	16. 7	59. 16	59. 9	4824	4833

[128] NOVEMBER 1775. VIII.

Distances of γ 's Center from $\odot$, and from Stars east of her.

Days.	Stars Names.	Noon.	3 Hours.	6 Hours.	9 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1	α Arietis.	74. 52. 12	73. 9. 34	71. 26. 57	69. 44. 20
2		61. 11. 59	59. 29. 45	57. 47. 40	56. 5. 46
3		47. 39. 35	45. 59. 18	44. 19. 26	42. 40. 0
4	Aldebaran.	63. 57. 44	62. 10. 57	60. 24. 16	58. 37. 40
5		49. 46. 4	48. 0. 7	46. 14. 19	44. 28. 40
6		35. 42. 58	33. 58. 24	32. 14. 4	30. 29. 56
7		21. 52. 53	20. 10. 15	18. 27. 53	16. 45. 47
8	Pollux.	53. 1. 2	51. 22. 40	49. 44. 44	48. 7. 13
9		40. 6. 8	38. 31. 22	36. 57. 8	35. 23. 27
10	Regulus.	62. 17. 54	60. 42. 27	59. 7. 19	57. 32. 28
11		49. 42. 40	48. 9. 30	46. 36. 35	45. 3. 56
12		37. 24. 28	35. 53. 16	34. 22. 16	32. 51. 28
13		25. 20. 6			
13	Spica μ	79. 12. 13	77. 43. 1	76. 13. 56	74. 45. 0
14		67. 22. 8	65. 53. 49	64. 25. 34	62. 57. 24
15		55. 37. 16			
12	The Sun.	120. 31. 6	119. 7. 56	117. 44. 55	116. 22. 7
13		109. 30. 36	108. 8. 45	106. 47. 2	105. 25. 26
14		98. 38. 59	97. 17. 56	95. 56. 55	94. 35. 59
15		87. 51. 37	86. 30. 44	85. 9. 50	83. 48. 55
16		77. 3. 35	75. 42. 17	74. 20. 53	72. 59. 23
17		66. 9. 51	64. 47. 30	63. 25. 0	62. 2. 19
18		55. 6. 7	53. 42. 12	52. 18. 5	50. 53. 45
19		43. 48. 42	42. 22. 59	40. 57. 0	39. 30. 46
24	β Capricorni.	40. 40. 45	38. 56. 5	37. 11. 18	35. 26. 23
25		26. 40. 10	24. 54. 49	23. 9. 29	21. 24. 10
26	α Pegasi.	62. 47. 22	61. 10. 41	59. 34. 21	57. 58. 22
27		50. 5. 8	48. 32. 17	47. 0. 11	45. 28. 54
28	α Arietis.	77. 55. 18	76. 12. 25	74. 29. 40	72. 47. 1
29		64. 16. 4	62. 34. 27	60. 53. 2	59. 11. 52
30		50. 50. 12	49. 10. 52	47. 32. 0	45. 53. 36
D.1		37. 49. 58			

IX. NOVEMBER 1775. [129]

Distances of γ 's Center from $\odot$, and from Stars east of her.

Days.	Stars Names.	12 Hours.	15 Hours.	18 Hours.	21 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1	α Arietis.	68. 1. 44	66. 19. 9	64. 36. 45	62. 54. 16
2		54. 24. 2	52. 42. 29	51. 1. 14	49. 20. 15
3		41. 1. 3			
3	Aldebaran.	71. 5. 28	69. 18. 27	67. 31. 29	65. 44. 35
4		56. 51. 9	55. 4. 44	53. 18. 24	51. 32. 11
5		42. 43. 10	40. 57. 50	39. 12. 42	37. 27. 44
6		28. 46. 2	27. 2. 22	25. 18. 57	23. 35. 48
7	Pollux.	15. 4. 0			
7		59. 38. 5	57. 58. 17	56. 18. 50	54. 39. 46
8		46. 30. 6	44. 53. 24	43. 17. 10	41. 41. 25
9	Regulus.	33. 50. 20			
9		68. 42. 42	67. 6. 2	65. 29. 41	63. 53. 38
10		55. 57. 56	54. 23. 41	52. 49. 43	51. 16. 3
11		43. 31. 34	41. 59. 26	40. 27. 33	38. 55. 53
12	Spica κ	31. 20. 52	29. 50. 26	28. 20. 9	26. 50. 2
13		73. 16. 13	71. 47. 33	70. 18. 58	68. 50. 30
14		51. 29. 17	60. 1. 13	58. 33. 11	57. 5. 12
12	The Sun.	114. 59. 29	113. 37. 2	112. 14. 44	110. 52. 35
13		104. 3. 58	102. 42. 36	101. 21. 18	100. 0. 6
14		93. 15. 4	91. 54. 11	90. 33. 19	89. 12. 28
15		82. 27. 58	81. 6. 58	79. 45. 55	78. 24. 47
16		71. 37. 44	70. 15. 58	68. 54. 4	67. 32. 1
17		60. 39. 29	59. 16. 27	57. 53. 12	56. 29. 45
18	β Capricorni.	49. 29. 12	48. 4. 25	46. 39. 25	45. 14. 10
24		33. 41. 17	31. 56. 5	30. 10. 50	28. 25. 32
25		19. 38. 53			
25	α Pegasi.	69. 16. 22	67. 38. 50	66. 1. 28	64. 24. 19
26		56. 22. 45	54. 47. 31	53. 12. 49	51. 38. 42
27		43. 58. 29			
27	α Arietis.	84. 47. 30	83. 4. 22	81. 21. 17	79. 38. 15
28		71. 4. 30	69. 22. 8	67. 39. 56	65. 57. 54
29		57. 30. 56	55. 50. 15	54. 9. 54	52. 29. 53
30		44. 15. 40	42. 38. 18	41. 1. 33	39. 25. 26

[130] NOVEMBER 1775. X.

Distances of γ 's Center from $\odot$, and from Stars west of her.

Days.	Stars Names.	Noon.	3 Hours.	6 Hours.	9 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1	The Sun.	100. 57. 39	102. 36. 11	104. 14. 45	105. 53. 25
2		114. 7. 25	115. 46. 21	117. 25. 17	119. 4. 15
1	β Capri- corni.	19. 27. 45	21. 13. 11	22. 58. 46	24. 44. 32
2		33. 35. 34	35. 22. 5	37. 8. 40	38. 55. 20
3		47. 49. 13	49. 36. 3	51. 22. 54	53. 9. 45
4	α Aquilæ.	69. 14. 25	70. 47. 39	72. 21. 3	73. 54. 38
5		81. 44. 8	83. 18. 4	84. 51. 59	86. 25. 50
6	Fomal- haut.	60. 27. 49	62. 3. 58	63. 40. 11	65. 16. 25
7		73. 17. 10	74. 53. 2	76. 28. 46	78. 4. 20
8	α Pegasi.	71. 5. 5	72. 37. 29	74. 9. 43	75. 41. 48
9		83. 19. 18			
9	α Arietis.	39. 42. 44	41. 12. 51	42. 43. 2	44. 13. 20
10		51. 45. 38	53. 16. 0	54. 46. 18	56. 16. 26
11	Aldeba- ran.	30. 26. 19	31. 59. 27	33. 32. 20	35. 4. 57
12		42. 44. 23	44. 15. 33	45. 46. 33	47. 17. 21
13		54. 48. 40	56. 18. 27	57. 48. 6	59. 17. 38
14		66. 43. 42			
14	Pollux.	24. 15. 48	25. 38. 21	27. 1. 18	28. 24. 44
15		35. 27. 49	36. 53. 19	38. 19. 2	39. 45. 0
16		46. 57. 50	48. 25. 0	49. 52. 20	51. 19. 53
17	Regulus.	22. 14. 25	23. 44. 44	25. 15. 15	26. 45. 56
18		34. 22. 23	35. 54. 22	37. 26. 36	38. 59. 5
19		46. 45. 11	48. 19. 13	49. 53. 32	51. 28. 10
20		59. 25. 44	61. 2. 11	62. 38. 56	64. 16. 0
21		72. 25. 52			
26	The Sun.	44. 18. 48	45. 57. 12	47. 35. 41	49. 14. 13
27		57. 27. 38	59. 6. 24	60. 45. 9	62. 23. 53
28		70. 37. 14	72. 15. 49	73. 54. 23	75. 32. 54
29		83. 44. 34	85. 22. 40	87. 0. 43	88. 38. 41
30		96. 47. 13	98. 24. 38	100. 1. 57	101. 39. 10
D. 1		109. 43. 36			
30	β Capri- corni.	44. 33. 41	46. 18. 45	48. 3. 45	49. 48. 41
D. 1		58. 31. 56			

XI. NOVEMBER 1775. [131]

Distances of β 's Center from $\odot$, and from Stars west of her.

Days.	Stars Names.	12 Hours.	15 Hours.	18 Hours.	21 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1	The Sun.	107. 32. 7	109. 10. 53	110. 49. 41	112. 28. 32
2		120. 43. 14			
1	β Capri- corni.	26. 30. 29	28. 16. 35	30. 2. 47	31. 49. 7
2		40. 42. 3	42. 28. 48	44. 15. 35	46. 2. 23
3		54. 56. 34			
3	α Aquilæ.	63. 4. 19	64. 36. 24	66. 8. 46	67. 41. 25
4		75. 28. 26	77. 2. 18	78. 36. 12	80. 10. 9
5		87. 59. 35			
5	Fomal- haut.	54. 4. 38	55. 40. 13	57. 15. 56	58. 51. 47
6		66. 52. 42	68. 28. 55	70. 5. 5	71. 41. 9
7		79. 39. 42			
7	α Pegasi.	64. 54. 34	66. 27. 19	67. 59. 59	69. 32. 35
8		77. 13. 44	78. 45. 28	80. 16. 59	81. 48. 16
9	α Arietis.	45. 43. 46	47. 14. 14	48. 44. 42	50. 15. 10
10		57. 46. 29			
10	Aldeba- ran.	24. 11. 10	25. 45. 20	27. 19. 16	28. 52. 55
11		36. 37. 20	38. 9. 27	39. 41. 20	41. 12. 59
12		48. 47. 57	50. 18. 22	51. 48. 38	53. 18. 44
13		60. 47. 2	62. 16. 19	63. 45. 32	65. 14. 40
14	Pollux.	29. 48. 39	31. 12. 56	32. 37. 34	34. 2. 31
15		41. 11. 12	42. 37. 33	44. 4. 7	45. 30. 52
16		52. 47. 37			
16	Regulus.	16. 14. 42	17. 44. 25	19. 14. 15	20. 44. 16
17		28. 16. 49	29. 47. 53	31. 19. 10	32. 50. 40
18		40. 31. 47	42. 4. 44	43. 37. 57	45. 11. 26
19		53. 3. 5	54. 38. 16	56. 13. 48	57. 49. 36
20		65. 53. 22	67. 31. 2	69. 9. 0	70. 47. 17
25	The Sun.	37. 46. 10	39. 24. 10	41. 2. 16	42. 40. 28
26		50. 52. 50	52. 31. 30	54. 10. 11	55. 48. 54
27		64. 2. 36	65. 41. 18	67. 19. 58	68. 58. 37
28		77. 11. 24	78. 49. 48	80. 28. 7	82. 6. 22
29		90. 16. 35	91. 54. 21	93. 32. 4	95. 9. 41
30		103. 16. 17	104. 53. 17	106. 30. 10	108. 6. 56
29	β Capri- corni.	37. 32. 33	39. 17. 56	41. 3. 16	42. 48. 31
30		51. 33. 33	53. 18. 18	55. 2. 56	56. 47. 29

[132] NOVEMBER 1775. XII.

Configurations of the SATELLITES of JUPITER at
9 o' th' Clock at Night.

1		4.	.1	⊙	.2 .3	
2		4.		2. ⊙	3.	1. ●
3	4.		.2	⊙ .1	3.	
4	4		3. 1.	⊙	.2	
5	4	3.		⊙	.1 2.	
6		4. 3.	2. 1.	⊙		
7	3.0		4. .2	⊙	1.	
8	4.0		.1	⊙	.2 .3	
9	2●			⊙ 1.	4. 3.	
10	1.0		.2	⊙	3.	4.
11			3. 1.	⊙	.2	4.
12		3.		⊙	.1 2.	4.
13		.3	2. 1.	⊙		4.
14			.2 .3	⊙	1.	4.
15			.1	⊙	.2 .3 4.	
16	2●			⊙ 4. 1.	3.	
17		.2 4.	.1	⊙	3.	
18	1●	4.	3.	⊙	.2	
19	4.	3.		⊙	.1 2.	
20	4.	.2 1. 2		⊙		
21	4		.2 .3	⊙	.1	
22	4		.1	⊙	.2 .3	
23		4		⊙ 2. 1.	3.	
24		2.	4. 1.	⊙	3.	
25	1● 2.0		3.	⊙	4.	
26		3.		⊙ .1	2. 4.	
27		.2	1. 2	⊙		4.
28		.2 .3		⊙	.1	4.
29		1.		⊙	2 3	4.
30				⊙	2. 1. 3.	4.

I. DECEMBER 1775. [133]			
Days of the Month.	Days of the Week.	Sundays, Holidays, &c.	Phases of the Moon.
			D. H. M.
			Full Moon — 6. 14. 38
			Last Quarter — 14. 16. 45
			New Moon — 22. 3. 1
			First Quarter — 28. 19. 58
1	F.		Other Phenomena. D. 3. ☾ 2 ad ☿ Ceti 13 ^h . 31'. ☾ μ Ceti 21 ^h . 23'. 5. ♀ ♃ diff. Lat. 40'. ☾ γ ☿ 16 ^h . 12'. ☾ 1 ad ♄ ☿ 18 ^h . 9'. ☾ 2 ad ♄ ☿ 18 ^h . 31'. ☾ α ☿ 23 ^h . 28'. 8. ☾ ♃ 1 ^h . 56'. 11. ☿ β ♀ diff. Lat. 44'. 12. ☾ ♃ 6 ^h . 6'. ☾ α ♀ Im. 9 ^h . 18 ^h . * 10 ^h . 1 ^h N. of ♄'s cent. Em. 10 ^h . 4'. * 7' N. of ♄'s cent. 13. ☾ χ ♀ Im. 16 ^h . 3'. * 14' S. of ♄'s cent. Em. 16 ^h . 27'. * 14' S. of ♄'s cent. 14. ☾ σ ♀ 1 ^h . 32'. 15. ☾ γ ♀ 20 ^h . 28'. 19. ☾ γ ♄ 8 ^h . 45'. ☾ η ♄ 12 ^h . 44'. ☾ ♄ ♄ 18 ^h . 3'. 20. ☾ ♄ Serpent. 8 ^h . 29'. 21. ☾ enters ♄ at 10 ^h . 40'. 29. ♀ γ ♄ diff. Lat. 58'. 30. ☾ 2 ad ☿ Ceti 19 ^h . 1'. 31. ♀ η ♄ diff. Lat. 35'. ☾ μ Ceti 2 ^h . 59'.
2	Sa.		
3	Su.	Advent-Sunday.	
4	M.		
5	Tu.		
6	W.	Nicholas.	
7	Th.		
8	F.	Concept. of V. Mary.	
9	Sa.		
10	Su.	2d Sunday in Advent.	Other Phenomena. D. 3. ☾ 2 ad ☿ Ceti 13 ^h . 31'. ☾ μ Ceti 21 ^h . 23'. 5. ♀ ♃ diff. Lat. 40'. ☾ γ ☿ 16 ^h . 12'. ☾ 1 ad ♄ ☿ 18 ^h . 9'. ☾ 2 ad ♄ ☿ 18 ^h . 31'. ☾ α ☿ 23 ^h . 28'. 8. ☾ ♃ 1 ^h . 56'. 11. ☿ β ♀ diff. Lat. 44'. 12. ☾ ♃ 6 ^h . 6'. ☾ α ♀ Im. 9 ^h . 18 ^h . * 10 ^h . 1 ^h N. of ♄'s cent. Em. 10 ^h . 4'. * 7' N. of ♄'s cent. 13. ☾ χ ♀ Im. 16 ^h . 3'. * 14' S. of ♄'s cent. Em. 16 ^h . 27'. * 14' S. of ♄'s cent. 14. ☾ σ ♀ 1 ^h . 32'. 15. ☾ γ ♀ 20 ^h . 28'. 19. ☾ γ ♄ 8 ^h . 45'. ☾ η ♄ 12 ^h . 44'. ☾ ♄ ♄ 18 ^h . 3'. 20. ☾ ♄ Serpent. 8 ^h . 29'. 21. ☾ enters ♄ at 10 ^h . 40'. 29. ♀ γ ♄ diff. Lat. 58'. 30. ☾ 2 ad ☿ Ceti 19 ^h . 1'. 31. ♀ η ♄ diff. Lat. 35'. ☾ μ Ceti 2 ^h . 59'.
11	M.		
12	Tu.		
13	W.	Lucy.	
14	Th.		
15	F.		
16	Sa.	O Sap. Camb. T. ends.	
17	Su.	3d Sunday in Advent. Oxf.	
18	M.	[Term ends.	
19	Tu.		
20	W.		Other Phenomena. D. 3. ☾ 2 ad ☿ Ceti 13 ^h . 31'. ☾ μ Ceti 21 ^h . 23'. 5. ♀ ♃ diff. Lat. 40'. ☾ γ ☿ 16 ^h . 12'. ☾ 1 ad ♄ ☿ 18 ^h . 9'. ☾ 2 ad ♄ ☿ 18 ^h . 31'. ☾ α ☿ 23 ^h . 28'. 8. ☾ ♃ 1 ^h . 56'. 11. ☿ β ♀ diff. Lat. 44'. 12. ☾ ♃ 6 ^h . 6'. ☾ α ♀ Im. 9 ^h . 18 ^h . * 10 ^h . 1 ^h N. of ♄'s cent. Em. 10 ^h . 4'. * 7' N. of ♄'s cent. 13. ☾ χ ♀ Im. 16 ^h . 3'. * 14' S. of ♄'s cent. Em. 16 ^h . 27'. * 14' S. of ♄'s cent. 14. ☾ σ ♀ 1 ^h . 32'. 15. ☾ γ ♀ 20 ^h . 28'. 19. ☾ γ ♄ 8 ^h . 45'. ☾ η ♄ 12 ^h . 44'. ☾ ♄ ♄ 18 ^h . 3'. 20. ☾ ♄ Serpent. 8 ^h . 29'. 21. ☾ enters ♄ at 10 ^h . 40'. 29. ♀ γ ♄ diff. Lat. 58'. 30. ☾ 2 ad ☿ Ceti 19 ^h . 1'. 31. ♀ η ♄ diff. Lat. 35'. ☾ μ Ceti 2 ^h . 59'.
21	Th.	St. Thomas.	
22	F.		
23	Sa.		
24	Su.	4th Sunday in Advent.	
25	M.	Christmas-day.	
26	Tu.	St. Stephen.	
27	W.	St. John.	
28	Th.	Innocents.	
29	F.		
30	Sa.		
31	Su.	Su. after Christ. Silvester.	

[134]		D E C E M B E R 1775.				H.
Days of the Month.	Days of the Week.	Sun's Longitude.	Sun's Right Asc. in Time.	Sun's Declin. South.	Equat. of Time. Sub.	Diff.
		S. D. M. S.	H. M. S.	D. M. S.	M. S.	S.
1	F.	8. 9. 11. 47	16. 30. 0, 2	21. 51. 16	10. 34, 4	23, 1
2	Sa.	8. 10. 12. 42	16. 34. 20, 0	22. 0. 20	10. 11, 3	23, 7
3	Su.	8. 11. 13. 37	16. 38. 40, 3	22. 8. 59	9. 47, 6	24, 3
4	M.	8. 12. 14. 34	16. 43. 1, 2	22. 17. 12	9. 23, 3	24, 8
5	Tu.	8. 13. 15. 31	16. 47. 22, 6	22. 24. 59	8. 58, 5	25, 3
6	W.	8. 14. 16. 28	16. 51. 44, 6	22. 32. 20	8. 33, 2	25, 9
7	Th.	8. 15. 17. 27	16. 56. 7, 1	22. 39. 14	8. 7, 3	26, 4
8	F.	8. 16. 18. 27	17. 0. 30, 1	22. 45. 41	7. 40, 9	26, 8
9	Sa.	8. 17. 19. 27	17. 4. 53, 6	22. 51. 42	7. 14, 1	27, 3
10	Su.	8. 18. 20. 29	17. 9. 17, 5	22. 57. 16	6. 46, 8	27, 7
11	M.	8. 19. 21. 31	17. 13. 41, 8	23. 2. 22	6. 19, 1	28, 0
12	Tu.	8. 20. 22. 35	17. 18. 6, 5	23. 7. 1	5. 51, 1	28, 5
13	W.	8. 21. 23. 39	17. 22. 31, 6	23. 11. 12	5. 22, 6	28, 8
14	Th.	8. 22. 24. 45	17. 26. 57, 0	23. 14. 56	4. 53, 8	29, 0
15	F.	8. 23. 25. 51	17. 31. 22, 7	23. 18. 12	4. 24, 8	29, 3
16	Sa.	8. 24. 26. 58	17. 35. 48, 7	23. 21. 0	3. 55, 5	29, 6
17	Su.	8. 25. 28. 7	17. 40. 14, 9	23. 23. 20	3. 25, 9	29, 8
18	M.	8. 26. 29. 16	17. 44. 41, 3	23. 25. 12	2. 56, 1	30, 0
19	Tu.	8. 27. 30. 26	17. 49. 7, 9	23. 26. 35	2. 26, 1	30, 0
20	W.	8. 28. 31. 37	17. 53. 34, 6	23. 27. 30	1. 56, 1	30, 2
21	Th.	8. 29. 32. 48	17. 58. 1, 4	23. 27. 57	1. 25, 9	30, 2
22	F.	9. 0. 33. 59	18. 2. 28, 2	23. 27. 56	0. 55, 7	30, 2
23	Sa.	9. 1. 35. 11	18. 6. 55, 1	23. 27. 26	0. 25, 5	30, 2
24	Su.	9. 2. 36. 23	18. 11. 21, 8	23. 26. 27	Add. 4, 7	30, 1
25	M.	9. 3. 37. 35	18. 15. 48, 6	23. 25. 0	0. 34, 8	30, 0
26	Tu.	9. 4. 38. 47	18. 20. 15, 2	23. 23. 6	1. 4, 8	29, 8
27	W.	9. 5. 39. 59	18. 24. 41, 6	23. 20. 43	1. 34, 6	29, 6
28	Th.	9. 6. 41. 11	18. 29. 7, 9	23. 17. 51	2. 4, 2	29, 4
29	F.	9. 7. 42. 22	18. 33. 34, 0	23. 14. 32	2. 33, 6	29, 2
30	Sa.	9. 8. 43. 33	18. 37. 59, 8	23. 10. 44	3. 2, 8	28, 9
31	Su.	9. 9. 44. 45	18. 42. 25, 3	23. 6. 29	3. 31, 7	

III. DECEMBER 1775. [135]

Days.	Semidia- meter of the Sun.	Time of D ^o passing the Meridian.	Hourly Motion of the Sun.	Logarithm of the Sun's Distance.	Place of the Moon's Node.
	M. S.	M. S.	M. S.		S. D. M.
1	16. 17, 1	1. 10, 2	2. 32, 2	9. 993584	4. 19. 3
7	16. 17, 9	1. 10, 6	2. 32, 5	9. 993227	4. 18. 44
13	16. 18, 5	1. 10, 9	2. 32, 7	9. 992966	4. 18. 25
19	16. 19, 0	1. 11, 1	2. 32, 8	9. 992792	4. 18. 6
25	16. 19, 2	1. 11, 1	2. 32, 9	9. 992677	4. 17. 46

Eclipses of the SATELLITES of JUPITER.

I. Satellite. Immerfions.		II. Satellite. Immerfions.		III. Satellite.	
Days	H. M. S.	Days	H. M. S.	Days	H. M. S.
2	10* 24. 30	4	3. 25. 17	2	6* 2. 27 I.
4	4. 52. 19	7	16* 42. 31	9	12* 18. 59 E.
5	23. 20. 7	Emerfions.		16	16* 16. 27 E.
7	17* 47. 52	11	8* 26. 38	23	20. 13. 49 E.
Emerfions.		14	21. 43. 56	31	0. 11. 24 E.
9	14* 25. 36	18	11* 1. 14	IV. Satellite. Conj.	
11	8* 53. 23	22	0. 18. 30		
13	3. 21. 7	25	13* 35. 57		
14	21. 48. 52	29	2. 53. 18	3	3. 0. 49 Sup.
16	16* 16. 36			11	10* 21. 58 Inf.
18	10* 44. 20			19	21. 2. 59 Sup.
20	5* 12. 4			28	4. 22. 30 Inf.
21	23. 39. 47				
23	18. 7. 30				
25	12* 35. 15				
27	7* 3. 2				
29	1. 30. 50				
30	19. 58. 38				

[136] D E C E M B E R 1775. IV.

Days.	Heliocen- tric Lon- gitude.	Heliocen- tric Lati- tude.	Geocen- tric Lon- gitude.	Geocen- tric La- titude.	Declina- tion.	Pass. over Merid.
	S. D. M.	D. M.	S. D. M.	D. M.	D. M.	H. M.

M E R C U R Y. Greatest Elong. 8^d.

1	4. 9. 18	6. 57 N	7. 20. 1	2. 39 N	15. 13 S	22. 42
7	5. 9. 20	6. 25	7. 24. 27	2. 18	16. 40	22. 35
13	6. 4. 8	4. 40	8. 1. 30	1. 38	18. 53	22. 37
19	6. 25. 4	2. 29	8. 9. 42	0. 52	21. 5	22. 45
25	7. 13. 31	0. 17	8. 18. 25	0. 6	22. 52	22. 56

V E N U S.

1	3. 1. 57	1. 1 N	6. 28. 24	1. 42 N	9. 19 S	21. 16
7	3. 11. 40	1. 33	7. 2. 10	2. 22	10. 1	21. 6
13	3. 21. 24	2. 2	7. 6. 38	2. 51	11. 3	20. 57
19	4. 1. 9	2. 28	7. 11. 40	3. 11	12. 19	20. 51
25	4. 10. 55	2. 49	7. 17. 8	3. 23	13. 43	20. 46

M A R S.

1	9. 27. 3	1. 44 S	9. 7. 34	1. 6 S	24. 22 S	2. 3
7	10. 0. 45	1. 46	9. 12. 11	1. 7	24. 1	1. 57
13	10. 4. 29	1. 48	9. 16. 50	1. 8	23. 32	1. 51
19	10. 8. 14	1. 49	9. 21. 31	1. 8	22. 52	1. 45
25	10. 11. 59	1. 50	9. 26. 12	1. 8	24. 3	1. 38

J U P I T E R. ♂ 8^d. 6^h.

1	2. 15. 58	0. 30 S	2. 17. 35	0. 38 S	22. 16 N	12. 33
7	2. 16. 29	0. 30	2. 16. 46	0. 37	22. 12	12. 4
13	2. 17. 0	0. 29	2. 15. 57	0. 36	22. 8	11. 34
19	2. 17. 32	0. 28	2. 15. 9	0. 35	22. 3	11. 4
25	2. 18. 3	0. 28	2. 14. 24	0. 34	21. 59	10. 34

S A T U R N.

1	6. 13. 50	2. 29 N	6. 18. 23	2. 20 N	5. 3 S	20. 38
7	6. 14. 1	2. 29	6. 18. 54	2. 21	5. 14	20. 14
13	6. 14. 13	2. 29	6. 19. 24	2. 23	5. 24	19. 49
19	6. 14. 25	2. 29	6. 19. 50	2. 24	5. 33	19. 24
25	6. 14. 37	2. 29	6. 20. 14	2. 26	5. 40	18. 59

V. DECEMBER 1775. [137]

Days of the Month.	Days of the Week.	Moon's Longitude at Noon.	Moon's Longitude at Midnight.	Moon's Latitude at Noon.	Moon's Latitude at Midn.
		S. D. M. S.	S. D. M. S.	D. M. S.	D. M. S.
1	F.	11. 28. 57. 27	0. 5. 55. 0	3. 18. 15 S	3. 44. 43 S
2	Sa.	0. 12. 50. 55	0. 19. 45. 14	4. 7. 43	4. 27. 1
3	Su.	0. 26. 37. 32	1. 3. 27. 46	4. 42. 21	4. 53. 29
4	M.	1. 10. 15. 34	1. 17. 0. 39	5. 0. 26	5. 3. 7
5	Tu.	1. 23. 42. 48	2. 0. 21. 39	5. 1. 34	4. 55. 56
6	W.	2. 6. 57. 0	2. 13. 28. 39	4. 46. 23	4. 33. 8
7	Th.	2. 19. 56. 23	2. 26. 20. 12	4. 16. 28	3. 56. 40
8	F.	3. 2. 39. 51	3. 8. 55. 36	3. 34. 9	3. 9. 14
9	Sa.	3. 15. 7. 27	3. 21. 15. 35	2. 42. 16	2. 13. 36
10	Su.	3. 27. 20. 18	4. 3. 21. 56	1. 43. 38	1. 12. 43
11	M.	4. 9. 20. 56	4. 15. 17. 47	0. 41. 11 S	0. 9. 20 S
12	Tu.	4. 21. 12. 55	4. 27. 7. 1	0. 22. 28 N	0. 54. 0 N
13	W.	5. 3. 0. 41	5. 8. 54. 34	1. 24. 55	1. 55. 0
14	Th.	5. 14. 49. 15	5. 20. 45. 32	2. 23. 52	2. 51. 23
15	F.	5. 26. 44. 5	6. 2. 45. 33	3. 17. 10	3. 40. 56
16	Sa.	6. 8. 50. 35	6. 14. 59. 50	4. 2. 29	4. 21. 30
17	Su.	6. 21. 13. 49	6. 27. 33. 6	4. 37. 37	4. 50. 37
18	M.	7. 3. 58. 1	7. 10. 29. 0	5. 0. 9	5. 5. 59
19	Tu.	7. 17. 6. 7	7. 23. 49. 29	5. 7. 51	5. 5. 30
20	W.	8. 0. 39. 6	8. 7. 34. 42	4. 58. 49	4. 47. 40
21	Th.	8. 14. 35. 50	8. 21. 42. 0	4. 32. 2	4. 12. 3
22	F.	8. 28. 52. 37	9. 6. 6. 52	3. 47. 50	3. 19. 47
23	Sa.	9. 13. 23. 54	9. 20. 42. 53	2. 48. 13	2. 13. 42
24	Su.	9. 28. 2. 51	10. 5. 22. 56	1. 36. 55	0. 58. 26 N
25	M.	10. 12. 42. 31	10. 20. 0. 48	0. 18. 58 N	0. 20. 44 S
26	Tu.	10. 27. 17. 0	11. 4. 30. 49	0. 59. 55 S	1. 37. 57
27	W.	11. 11. 41. 45	11. 18. 49. 33	2. 14. 14	2. 48. 9
28	Th.	11. 25. 54. 4	0. 2. 55. 8	3. 19. 11	3. 46. 59
29	F.	0. 9. 52. 39	0. 16. 46. 36	4. 11. 10	4. 31. 31
30	Sa.	0. 23. 37. 1	1. 0. 23. 53	4. 47. 48	4. 59. 54
31	Su.	1. 7. 7. 22	1. 13. 47. 21	5. 7. 43	5. 11. 2

[138] DECEMBER 1775. VI.

Days of the Month.	Days of the Week.	D's Age.	D's Passage over Merid.	D's Right Ascen. at Noon.	D's Right Asc. at Midn.	D's Declinat. at Noon.	D's Declin. at Midn.
			H. M.	D. M.	D. M.	D. M.	D. M.
1	F.	10	7. 47	0. 22	6. 54	3. 27 S	1. 4 S
2	Sa.	11	8. 36	13. 25	19. 55	1. 17 N	3. 37 N
3	Su.	12	9. 26	26. 24	32. 54	5. 53	8. 5
4	M.	13	10. 15	39. 26	46. 0	10. 9	12. 5
5	Tu.	14	11. 6	52. 37	59. 16	13. 51	15. 25
6	W.	15	11. 57	65. 57	72. 40	16. 47	17. 55
7	Th.	16	12. 48	79. 24	86. 7	18. 49	19. 28
8	F.	17	13. 38	92. 50	99. 30	19. 52	20. 1
9	Sa.	18	14. 28	106. 6	112. 37	19. 55	19. 35
10	Su.	19	15. 16	119. 3	125. 23	19. 1	18. 15
11	M.	20	16. 2	131. 36	137. 43	17. 16	16. 7
12	Tu.	21	16. 47	143. 44	149. 39	14. 48	13. 20
13	W.	22	17. 30	155. 29	161. 15	11. 44	10. 1
14	Th.	23	18. 12	166. 58	172. 39	8. 12	6. 17
15	F.	24	18. 54	178. 19	184. 0	4. 19	2. 17 N
16	Sa.	25	19. 37	189. 43	195. 29	0. 12 N	1. 54 S
17	Su.	26	20. 22	201. 21	207. 19	4. 0 S	6. 5
18	M.	27	21. 10	213. 25	219. 41	8. 8	10. 8
19	Tu.	28	22. 1	226. 7	232. 44	12. 2	13. 49
20	W.	29	22. 55	239. 34	246. 36	15. 26	16. 52
21	Th.	30	23. 52	253. 50	261. 14	18. 4	19. 1
22	F.	1	0	268. 49	276. 30	19. 40	20. 0
23	Sa.	2	0. 52	284. 16	292. 2	20. 0	19. 40
24	Su.	3	1. 52	299. 48	307. 30	18. 59	18. 0
25	M.	4	2. 51	315. 5	322. 32	16. 42	15. 9
26	Tu.	5	3. 47	329. 50	336. 59	13. 22	11. 23
27	W.	6	4. 41	343. 59	350. 50	9. 15	7. 0
28	Th.	7	5. 32	357. 34	4. 11	4. 41 S	2. 19 S
29	F.	8	6. 22	10. 43	17. 12	0. 4 N	2. 25 N
30	Sa.	9	7. 11	23. 38	30. 3	4. 43	6. 56
31	Su.	10	7. 59	36. 28	42. 54	9. 3	11. 3

VII. D E C E M B E R 1775. [139]

Days of the Month.	Days of the Week.	Semidr. Δ at Noon.	Semidr. Δ at Mid-night.	Hor. Par. Δ at Noon.	Hor. Par. Δ at Midnight.	Proport. Lo- gar. at Noon.	Proport. Lo- gar. at Midn.
		M. S.	M. S.	M. S.	M. S.		
1	F.	16. 5	16. 2	59. 1	58. 52	4843	4854
2	Sa.	16. 0	15. 56	58. 42	58. 31	4866	4880
3	Su.	15. 53	15. 50	58. 19	58. 6	4895	4911
4	M.	15. 46	15. 42	57. 53	57. 39	4927	4945
5	Tu.	15. 38	15. 34	57. 24	57. 8	4964	4984
6	W.	15. 30	15. 26	56. 53	56. 36	5003	5025
7	Th.	15. 21	15. 16	56. 20	56. 3	5045	5067
8	F.	15. 12	15. 8	55. 48	55. 33	5086	5106
9	Sa.	15. 4	15. 0	55. 18	55. 5	5125	5142
10	Su.	14. 57	14. 54	54. 53	54. 43	5158	5171
11	M.	14. 52	14. 50	54. 34	54. 28	5183	5191
12	Tu.	14. 49	14. 48	54. 24	54. 21	5197	5201
13	W.	14. 49	14. 50	54. 22	54. 25	5199	5195
14	Th.	14. 51	14. 53	54. 30	54. 37	5189	5179
15	F.	14. 56	14. 59	54. 48	55. 0	5165	5149
16	Sa.	15. 4	15. 8	55. 16	55. 33	5128	5106
17	Su.	15. 14	15. 19	55. 53	56. 15	5080	5051
18	M.	15. 26	15. 32	56. 38	57. 2	5022	4991
19	Tu.	15. 39	15. 46	57. 27	57. 52	4960	4928
20	W.	15. 53	15. 59	58. 17	58. 41	4897	4867
21	Th.	16. 6	16. 11	59. 4	59. 24	4839	4815
22	F.	16. 16	16. 21	59. 43	59. 58	4792	4773
23	Sa.	16. 24	16. 26	60. 10	60. 19	4759	4748
24	Su.	16. 28	16. 27	60. 24	60. 25	4742	4741
25	M.	16. 28	16. 26	60. 24	60. 19	4742	4748
26	Tu.	16. 24	16. 21	60. 12	60. 2	4757	4769
27	W.	16. 18	16. 15	59. 50	59. 37	4783	4799
28	Th.	16. 10	16. 6	59. 21	59. 5	4819	4838
29	F.	16. 2	15. 57	58. 49	58. 32	4858	4878
30	Sa.	15. 52	15. 48	58. 15	57. 58	4900	4921
31	Su.	15. 43	15. 38	57. 41	57. 24	4942	4964

[140] DECEMBER 1775. VIII.

Distances of J's Center from Stars, and from ☉ east of her.

Days.	Stars Names.	Noon.	3 Hours.	6 Hours.	9 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1	Aldebaran.	67. 30. 32	65. 45. 57	64. 1. 29	62. 17. 10
2		53. 37. 26	51. 53. 50	50. 10. 23	48. 27. 4
3		39. 52. 41	38. 10. 14	36. 27. 56	34. 45. 48
4		26. 17. 36	24. 36. 29	22. 55. 34	21. 14. 50
5		12. 54. 4			
5	Pollux.	57. 30. 45	55. 52. 51	54. 15. 14	52. 37. 53
6		44. 35. 39	43. 0. 10	41. 25. 6	39. 50. 25
7		32. 3. 45			
7	Regulus.	66. 52. 54	65. 16. 41	63. 40. 44	62. 5. 1
8		54. 10. 5	52. 35. 46	51. 1. 41	49. 27. 49
9		41. 41. 50	40. 9. 18	38. 36. 58	37. 4. 51
10		29. 27. 15	27. 56. 17	26. 25. 30	24. 54. 53
11		17. 24. 11	15. 54. 28	14. 24. 52	12. 55. 24
12	Spica ♏	59. 31. 59	58. 3. 51	56. 35. 48	55. 7. 50
13		47. 48. 59	46. 21. 22	44. 53. 48	43. 26. 16
14		36. 9. 15	34. 41. 57	33. 14. 42	31. 47. 29
15		24. 33. 0			
12	The Sun.	119. 9. 38	117. 48. 38	116. 27. 40	115. 6. 46
13		108. 22. 37	107. 1. 48	105. 40. 57	104. 20. 6
14		97. 35. 5	96. 13. 52	94. 52. 33	93. 31. 8
15		86. 42. 6	85. 19. 50	83. 57. 24	82. 34. 46
16		75. 38. 35	74. 14. 41	72. 59. 30	71. 26. 4
17		64. 19. 42	62. 53. 32	61. 27. 2	60. 0. 14
18		52. 41. 17	51. 12. 26	49. 43. 13	48. 13. 39
19		40. 40. 27	39. 8. 44		
24	α Pegasi.	54. 8. 48	52. 31. 27	50. 54. 44	49. 18. 43
25		41. 32. 11			
25	α Arietis.	81. 53. 27	80. 7. 8	78. 20. 57	76. 34. 56
26		67. 47. 56	66. 3. 15	64. 18. 51	62. 34. 47
27		53. 59. 54	52. 18. 10	50. 36. 57	48. 56. 16
28		40. 42. 3			
28	Aldebaran.	70. 32. 50	68. 47. 17	67. 1. 52	65. 16. 43
29		56. 34. 37	54. 50. 57	53. 7. 31	51. 24. 21
30		42. 52. 4	41. 10. 21	39. 28. 51	37. 47. 35
31		29. 24. 40	27. 44. 46	26. 5. 6	24. 25. 39
J. 1		16. 11. 32			

IX. DECEMBER 1775. [141]

Distances of J's Center from Stars, and from ☉ east of her.

Days.	Stars Names.	12 Hours.	15 Hours.	18 Hours.	21 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1	Aldebaran.	60. 32. 58	58. 48. 54	57. 4. 57	55. 21. 8
2		46. 43. 53	45. 0. 52	43. 17. 59	41. 35. 16
3		33. 3. 49	31. 22. 0	29. 40. 22	27. 58. 54
4		19. 34. 17	17. 53. 56	16. 13. 46	14. 33. 49
5	Pollux.	51. 0. 49	49. 24. 2	47. 47. 35	46. 11. 27
6		38. 16. 9	36. 42. 20	35. 8. 58	33. 36. 6
7	Regulus.	60. 29. 34	58. 54. 21	57. 19. 22	55. 44. 37
8		47. 54. 10	46. 20. 45	44. 47. 33	43. 14. 35
9		35. 32. 57	34. 1. 14	32. 29. 43	30. 58. 23
10		23. 24. 27	21. 54. 10	20. 24. 1	18. 54. 2
11	Spica ♏	11. 26. 3			
11		65. 25. 30	63. 56. 58	62. 28. 32	61. 0. 12
12		53. 39. 56	52. 12. 6	50. 44. 20	49. 16. 38
13		41. 58. 47	40. 31. 20	39. 3. 56	37. 36. 34
14	The Sun.	30. 20. 21	28. 53. 18	27. 26. 23	25. 59. 36
12		113. 45. 54	112. 25. 4	111. 4. 14	109. 43. 25
13		102. 59. 12	101. 38. 16	100. 17. 16	98. 56. 12
14		92. 9. 36	90. 47. 57	89. 26. 8	88. 4. 12
15		81. 11. 58	79. 48. 56	78. 25. 42	77. 2. 15
16		70. 1. 21	68. 36. 23	67. 11. 6	65. 45. 33
17		58. 33. 7	57. 5. 40	55. 37. 53	54. 9. 45
18		46. 43. 44	45. 13. 27	43. 42. 48	42. 11. 48
23	α Pegasi.	60. 42. 54	59. 3. 50	57. 25. 5	55. 46. 43
24		47. 43. 28	46. 9. 4	44. 35. 38	43. 3. 18
25	α Arietis.	74. 49. 6	73. 3. 28	71. 18. 3	69. 32. 52
26		60. 51. 2	59. 7. 38	57. 24. 39	55. 42. 4
27		47. 16. 8	45. 36. 36	43. 57. 44	42. 19. 33
28	Aldebaran.	63. 31. 48	61. 47. 8	60. 2. 43	58. 18. 33
29		49. 41. 25	47. 58. 43	46. 16. 15	44. 34. 2
30		36. 6. 34	34. 25. 46	32. 45. 10	31. 4. 48
31		22. 46. 25	21. 7. 23	19. 28. 34	17. 49. 57

[142] DECEMBER 1775. X.

Distances of ♃'s Center from ☉, and from Stars west of her.

Days	Stars Names.	Noon.	3 Hours.	6 Hours.	9 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1	The Sun.	109. 43. 37	111. 20. 12	112. 56. 38	114. 32. 57
1	α Aquilæ.	66. 16. 18	67. 46. 47	69. 17. 29	70. 48. 22
2		78. 24. 32	79. 55. 57	81. 27. 24	82. 58. 50
3	Fomal- haut.	56. 36. 5	58. 9. 47	59. 43. 40	61. 17. 40
4		69. 8. 45			
4	α Pegasi.	54. 48. 49	56. 18. 54	57. 49. 11	59. 19. 41
5		66. 54. 7	68. 25. 11	69. 56. 13	71. 27. 15
6		79. 1. 30			
6	α Arietis.	35. 29. 43	36. 57. 48	38. 26. 30	39. 55. 41
7		47. 25. 1	48. 55. 17	50. 25. 37	51. 55. 58
8		59. 27. 16			
8	Aldeba- ran.	25. 59. 24	27. 33. 40	29. 7. 43	30. 41. 34
9		38. 27. 28	39. 59. 59	41. 32. 18	43. 4. 25
10		50. 42. 0	52. 12. 57	53. 43. 43	55. 14. 20
11		62. 45. 5	64. 14. 49	65. 44. 26	67. 13. 56
12	Pollux.	31. 38. 27	33. 3. 32	34. 28. 52	35. 54. 23
13		43. 4. 29	44. 30. 56	45. 57. 31	47. 24. 13
14	Regulus.	18. 12. 4	19. 41. 8	21. 10. 18	22. 39. 35
15		30. 7. 55	31. 38. 2	33. 8. 19	34. 38. 48
16		42. 14. 16	43. 46. 4	45. 18. 7	46. 50. 27
17		54. 36. 11	56. 10. 15	57. 44. 38	59. 19. 22
18		67. 17. 59			
18	Spica ♏	14. 59. 49	16. 27. 25	17. 56. 48	19. 27. 46
19		27. 19. 13	28. 56. 1	30. 33. 30	32. 11. 36
20		40. 30. 48	42. 12. 13	43. 54. 6	45. 36. 25
25	The Sun.	39. 5. 0	40. 47. 4	42. 29. 1	44. 10. 54
26		52. 38. 37	54. 19. 46	56. 0. 46	57. 41. 36
27		66. 2. 56	67. 42. 35	69. 22. 1	71. 1. 15
28		79. 13. 59	80. 51. 50	82. 29. 26	84. 6. 48
29		92. 9. 56	93. 45. 49	95. 21. 27	96. 56. 51
30		104. 50. 16	106. 24. 13	107. 57. 56	109. 31. 25
31		117. 15. 31	118. 47. 40	120. 19. 35	
29	α Aquilæ.	75. 54. 32	77. 25. 41	78. 56. 46	80. 27. 47
30		88. 1. 1			
30	Fomal- haut.	53. 47. 52	55. 20. 28	56. 53. 11	58. 26. 1
31		66. 10. 58	67. 43. 57	69. 16. 53	70. 49. 45
J. 1		78. 32. 44			

XI. D E C E M B E R 1775. [143]

Distances of J's Center from ☉, and from Stars west of her.

Days.	Stars Names.	12 Hours.	15 Hours.	18 Hours.	21 Hours.
		D. M. S.	D. M. S.	D. M. S.	D. M. S.
1	The Sun.	116. 9. 8	117. 45. 10	119. 21. 5	120. 56. 51
1	α Aquilæ.	72. 19. 25	73. 50. 35	75. 21. 50	76. 53. 9
2		84. 30. 14			
2	Fomalhaut.	50. 23. 46	51. 56. 24	53. 29. 21	55. 2. 35
3		62. 51. 47	64. 25. 59	66. 0. 14	67. 34. 30
4	α Pegasi.	60. 50. 21	62. 21. 10	63. 52. 4	65. 23. 3
5		72. 58. 16	74. 29. 13	76. 0. 5	77. 30. 51
6	α Arietis.	41. 25. 13	42. 54. 54	44. 24. 47	45. 54. 50
7		53. 26. 19	54. 56. 39	56. 26. 57	57. 57. 10
8	Aldebaran.	32. 15. 12	33. 48. 35	35. 21. 46	36. 54. 43
9		44. 36. 19	46. 8. 1	47. 39. 32	49. 10. 52
10		56. 44. 47	58. 15. 4	59. 45. 13	61. 15. 13
11		68. 43. 19			
11	Pollux.	26. 1. 11	27. 24. 56	28. 49. 6	30. 13. 37
12		37. 20. 6	38. 45. 58	40. 12. 0	41. 38. 10
13		48. 51. 1			
13	Regulus.	12. 16. 35	13. 45. 21	15. 14. 11	16. 43. 5
14		24. 8. 59	25. 38. 30	27. 8. 9	28. 37. 58
15		36. 9. 28	37. 40. 20	39. 11. 25	40. 42. 44
16		48. 23. 1	49. 55. 52	51. 29. 0	53. 2. 27
17		60. 54. 24	62. 29. 47	64. 5. 30	65. 41. 34
18	Spica ♀	21. 0. 5	22. 33. 29	24. 7. 53	25. 43. 9
19		33. 50. 19	35. 29. 37	37. 9. 28	38. 49. 52
20		47. 19. 11			
25	The Sun.	45. 52. 41	47. 34. 21	49. 15. 54	50. 57. 19
26		59. 22. 16	61. 2. 44	62. 43. 0	64. 23. 4
27		72. 40. 15	74. 19. 1	75. 57. 34	77. 35. 53
28		85. 43. 56	87. 20. 48	88. 57. 25	90. 33. 48
29		98. 32. 1	100. 6. 56	101. 41. 37	103. 16. 4
30		111. 4. 40	112. 37. 43	114. 10. 32	115. 43. 8
28	α Aquilæ.	69. 49. 47	71. 20. 55	72. 52. 7	74. 23. 20
29		81. 58. 43	83. 29. 31	85. 0. 11	86. 30. 42
30	Fomalhaut.	59. 58. 56	61. 31. 55	63. 4. 55	64. 37. 56
31		72. 22. 34	73. 55. 17	75. 27. 53	77. 0. 23

[144] DECEMBER 1775. XII.

Configurations of the SATELLITES of JUPITER
at 7 o' th' Clock in the Evening.

1		2.	.1	⊙	3.	4.
2	3.		.2	⊙	1.	4.
3	4.	3.	.1	⊙	.2	
4	1.	.3	4.	2.	⊙	
5	4.		.2, 3	⊙	.1	
6	4.		1.	⊙	3 0 2	
7	4.			⊙	.2, 1	.3
8	.4		2.	.1	⊙	3.
9	.4		.2	⊙	3, 1.	
10		3.	.4	.1	⊙	.2
11	1 0 2	.3		.4	⊙	
12		.2, 3		⊙	.1	.4
13			1.	⊙	.1, 2	.4
14				⊙	.1, 2.	.3, .4
15			1 0 2	⊙	3.	.4
16		.2		⊙	3, 1.	4.
17		3.	.1	⊙	.2	4.
18	3.			⊙	1 0 2	4.
19	1. 0	.2, .3		⊙	4.	
20	3. 0		4. 1.	⊙	.2	
21		4.		⊙	.1, 2.	.3
22	4.		1, 2.	⊙		3.
23	4.		.2	⊙	3, 1.	
24	.4		3.	.1	⊙	.2
25	.4	3.		⊙	2, 1.	
26		.4	.3	.1	⊙	
27	1 0 2 0 3. 0		.4	⊙		
28				⊙	.4, 1	.2, .3
29			1, 2.	⊙		.3, .4
30		.2		⊙	.1, 3.	.4
31		3.	.1	⊙	.2	.4

EXPLANATION and USE OF THE ARTICLES

Contained in the

ASTRONOMICAL and NAUTICAL EPHEMERIS.

IT may be proper first to premise, that all the Calculations are made according to apparent Time by the Meridian of the Royal Observatory at Greenwich. They are likewise adapted to apparent Noon, except where they are otherwise distinguished, as the Eclipses and Configurations of Jupiter's Satellites, the Moon's Places, &c, computed for Midnight, and the Distances of the Moon from the Sun and Stars for every third Hour; which are all computed to the apparent Times set down.

Apparent Time is that deduced immediately from the Sun, whether from the Observation of his passing the Meridian, from his Altitude observed at a Distance from the Meridian, or from his observed Rising or Setting. This Time is different from that shewn by Clocks and Watches well regulated at Land, which is called equated or mean Time. This will be explained when we come to treat of the Equation of Time.

The Day is here supposed, according to the Method of Astronomers, to begin at Noon, or 12 Hours later than the civil Day of the same Denomination, and to be counted up to 24 Hours, or the succeeding Noon, when the next Day begins. Thus the Day of the Month and the Hour of the Day are the same in this Method as in the civil Account at Noon, and from Noon till Midnight; but from Midnight till Noon they differ;

differ; for whereas in the civil Account a fresh Day is supposed to begin at Midnight, and the Hours to begin over again, in this Method the Day is still continued beyond Midnight, and the Reckoning of the Hours is continued up to 24. Thus the Distances put down to January 10, 15 Hours, belong to January 11 at Three in the Morning by civil Reckoning.

There are 12 Pages for every Month. The first Column of the first Page of each Month contains the Day of the Month; the Second, the Day of the Week expressed concisely by the initial Letter or Letters, *Su.* standing for Sunday, *M.* for Monday, *Tu.* for Tuesday, *W.* for Wednesday, *Th.* for Thursday, *F.* for Friday, and *Sa.* for Saturday: The third Column exhibits the Sundays and Festivals of the Church of England, and other remarkable Days: The last Column shews at Top the Moon's Phases, or the Times of new and full Moon, and of the first and last Quarter, or two Quadratures with the Sun: Beneath are contained miscellaneous Phenomena, namely, Eclipses of the Sun and Moon, and Occultations of Planets or fixed Stars not less than the fourth Magnitude, by the Moon, as they should happen at Greenwich by the Tables; the Conjunctions of the Moon with all Stars not less than the fourth Magnitude, which can be Occultations any where on the Globe, between the Latitudes of 60° North and 40° South: The Conjunctions, Oppositions and Quadratures of the superior Planets with the Sun; and the Conjunctions and greatest Elongations of the inferior Planets from the Sun, the Entrance of the Sun into the several Signs, and any other remarkable Phenomena.

The Stars are expressed by Bayer's Characters of Reference. The Conjunction of the Moon or a Planet with a Star, is denoted by prefixing the Character of the Moon or Planet to that of the Star, the Time of the Conjunction being placed immediately after. The Case is the same with Respect to the Occultation of a Star or Planet by the Moon, only this is further distinguished by the Addition of *Im.* or Immersion, to signify the Disappearance behind the Moon; and *Em.* or Emer-
 sion, to signify the Re-appearance of the same. Thus $8^d. \text{D} \text{ } \delta \text{ } \nu$ $16^h. 22'$ signifies that the Moon will be in Conjunction with the Star $\delta \text{ } \nu$ on the Eighth Day at $16^h. 22'$ exclusive of Parallax: And $10^d. \text{D} \text{ } \epsilon \text{ } \text{II} \text{ } \text{Imm.} \text{ } 9^h. 14'$ *Em.* $10^h. 23'$ signifies that the Moon will eclipse $\epsilon \text{ } \text{II}$ on the 10th Day, the Immersion being at $9^h. 14'$ and at $10^h. 23'$ apparent Time at Greenwich.

The

The Occultations set down are those only visible at Greenwich; and the Circumstances will not differ very widely in most Parts of the Kingdom; but in very distant Places they will differ very much, owing to the Change of the Moon's Parallax, or it may become no Occultation at all: The like may be said of Eclipses of the Sun.

Eclipses of the Sun, and Occultations of fixed Stars by the Moon, if observed in Places whose Latitude and Longitude are well determined, may be applied to the Correction of the lunar Tables; but if made in Places whose Latitude only is well known, may be applied to the Determination of the Longitude of the Place; but for this Purpose an accurate Calculation must be made of the Moon's Parallax in Longitude and Latitude, which makes this Method of settling the Longitudes of Places, though a very accurate one, less convenient in Use for Persons not much versed in astronomical Calculations. However, this ought not to discourage Travellers or Mariners from endeavouring to make these Observations as often and as carefully as possible, when they shall happen to be at any Place whose Longitude they have Reason to think has not been at all or but indifferently determined; since the necessary Calculations may be made at any Time afterwards by themselves, at leisure, or referred to the Skill of Astronomers and Mathematicians.

Eclipses of the Moon are not liable to this Inconvenience; the Longitude of any Place, where an Eclipse has been observed, being deduced immediately by taking the Difference of the Time of the Observation and that set down in the Ephemeris, and converting it into Degrees, at the Rate of 15 to One Hour, &c. or more briefly by Table Pages 6. 7. 8. of the Tables requisite to be used with the Ephemeris. But as the Beginning or Ending of an Eclipse of the Moon cannot be generally observed nearer than One Minute, and sometimes Two or Three Minutes of Time, the Longitudes of Places cannot be certainly determined by this Method from a single Observation of the Beginning or End nearer than a Degree. It is unnecessary to mention that even this Point of Exactness will often be of great Service. If both the Beginning and End of the Eclipse be observed, a considerably greater Degree of Exactness will be attained.

The Conjunctions of the Moon with the Planets, or fixed Stars not less than the fourth Magnitude, which may prove Occultations in some inhabited Parts of the Globe, are evidently designed to instruct Mariners or Travellers to look out

frequently for such Observations; which if they happen to prove Occultations, and are carefully observed, will afford a certain Means of determining the Longitude of the Place of Observation.

The Days of the Oppositions, Quadratures, &c. of the Planets with Respect to the Sun, are Times at which they ought to be observed in fixed Observatories, for settling the Elements of their Orbits by a Series of several Years Observations.

The Two first Columns of the Second Page of the Month contain the Day of the Month and Week as before; next follow the Sun's Longitude, right Ascension in Time, Declination, and the Equation of Time, with the Difference from Day to Day.

The Longitude of the Sun is made use of in most of the succeeding Calculations of the Ephemeris, and may serve either to verify them, or to make other similar Calculations at a different Time of the Day. Particularly it may serve with the Help of the Moon's Longitude, to find the Distance of the Moon from the Sun at any Time, independent of the Distances contained in the Four last Pages of the Month. To find the Sun's Longitude at any Time different from Noon, Proportion must be made according to its daily Increase: Saying as 24^h . is to the Hour from Noon reckoned by the Meridian of Greenwich, so is the daily Variation of the Sun's Longitude, to a fourth Number; which added to the Sun's Longitude at the preceding Noon, gives the true Longitude at the given Time.

If the Time given be that of a Meridian different from Greenwich, it must be first reduced thereto, by adding or subtracting the Difference of Longitude turned into Time (at the Rate of One Hour to 15° , and One Minute of Time to 15 Minutes, or more briefly by Pages 6, 7, and 8, of the requisite Tables) according as the Place is to the West or to the East of Greenwich. Example: Suppose any one should want to know the Sun's Longitude, January 19, 1767, at $4^h. 35'$. being in $21^\circ 15'$. Longitude East of Greenwich. The Difference of Longitude turned into Time by Table Page 6, is $1^h. 25'$ which subtracted from $4^h. 35'$ because the Place is East of Greenwich, leaves $3^h. 10'$. for the Time reduced to the Meridian of Greenwich. The Sun's Longitude the preceding Noon is, $9^\circ. 29'. 18''. 2''$. and the following Noon is, $10^\circ. 0'. 19'. 4''$. the Difference is, $1^\circ. 1'. 2''$. or $61'. 2''$. the daily Variation. Then say, as 24^h . is to $3^h. 10'$. so is $61'. 2''$ to $8'. 3''$. which added to $9^\circ. 29'. 18''. 2''$. the Sun's Longitude on the preceding

preceding Noon, gives $9^{\circ}.29'.26''.5''$ the Sun's Longitude at the Time given. In like Manner any other of the following Articles is to be found by the Help of the Ephemeris.

The Sun's Longitude serves also to compute the Aberration of the fixed Stars and Planets.

The Sun's right Ascension in Time is useful to the practical Astronomer in regular Observatories, who adjusts his Clocks by sidereal Time. It is also useful to him for converting apparent into sidereal Time; as suppose that of an Eclipse of Jupiter's Satellites, in order to know at what Time it may be expected to happen by his Clocks: For this Purpose, the Sun's right Ascension at the preceding Noon, together with the Increase of right Ascension from Noon, must be added to the apparent Time of the Phenomenon set down in the Ephemeris.

The Sun's right Ascension in Time serves also to compute the apparent Time of a known Star's passing the Meridian: Thus subtract the Sun's right Ascension in Time at Noon from the Star's right Ascension in Time, the Remainder is the apparent Time of the Star's passing the Meridian nearly; from which the proportional Part of the daily Increase of the Sun's right Ascension for this apparent Time from Noon being subtracted, leaves the correct Time of the Star's passing the Meridian.

Hence the apparent Time may be found from an observed Altitude of a known fixed Star, suppose one contained Page 12 or 13 of the requisite Tables; as will be explained hereafter.

The Sun's right Ascension in Time is also useful for computing the Time of the Moon and Planets passing the Meridian, as will be shewn under their proper Articles.

The Sun's Declination is necessary to find the Latitude, whether at Sea or Land, from the Meridian Altitude observed; it is also requisite for finding the Latitude from Two Altitudes observed with the Interval of Time measured by a Watch; it serves for computing the Sun's Azimuth, having his Altitude and the Latitude of the Place given, in order to find the Variation of the Compass; it is required jointly with the Latitude of the Place and the Sun's horary Angle to compute his Altitude, if neglected to be observed at the Time of taking the Moon's Distance from the Sun for finding the Longitude, being useful to facilitate the Calculation of the Effect of Refraction and Parallax upon the Distance; it is also necessary to calculate the apparent Time from an observed Altitude of the Sun at a Distance
from

from the Meridian, the Latitude being given; or to compute the Time of the Sun's Setting or Rising; which, though a less accurate Method than the former of obtaining the Time, may yet be useful when that cannot be had. For any of these Purposes, the Sun's Declination must be found to the Time given nearly reduced to the Meridian of Greenwich, making Proportion according to the daily Increase or Decrease, in like Manner as was shewn with Respect to the Sun's Longitude.

The Equation of Time is a Correction, which added to or subtracted from the apparent Time (according to its Title at the Top of the Column) gives equated or mean Time, or that which should be shewn by a good Clock or Watch. Apparent Time is that which takes its Beginning from the Passage of the Sun's Centre over the Meridian of any Place; and had the Sun no Motion in the Ecliptic, or was his Motion reduced to the Equator or in right Ascension uniform, he would always return to the Meridian after equal Intervals of Time. But his apparent Motion in the Ecliptic being continually varying, and his Motion in right Ascension being rendered further unequal on Account of the Obliquity of the Ecliptic to the Equator, from these Causes it arises that the Intervals of his Return to the Meridian become unequal, and the Sun will gradually come too slow or too soon to the Meridian for an equable Motion, such as that of Clocks and Watches ought to be.

This Retardation or Acceleration of the Sun's coming to the Meridian is called the Equation of Time, and is contained in the last Column but One of Page 2d; and when applied according to its Title to the Apparent Time, or that deduced immediately from the Sun, gives the mean or equated Time, whence the Error of a Clock or Watch may be found, and, if required, it may be corrected.

If it is proposed to convert mean Time into apparent, this is done by a contrary Process, by applying the Equation of Time to the mean Time given, with its Title or Sign changed; viz. subtracting instead of adding, and adding instead of subtracting.

The Equation of Time being set down in the Ephemeris for the Noon at Greenwich, Proportion must be made according to the daily Difference, to find what it should be at any given Time reduced to the same Meridian, as in the preceding Articles. The last Column of this Page, containing the daily Differences of the Equation, is designed for this Purpose.

As

As often as it may be required to make any Calculations from astronomical Tables, and the Time given be apparent Time; it is necessary first to apply the Equation of Time thereto to convert it into mean Time; the Tables being disposed according to mean Motions. Thus the Articles contained in the Ephemeris answering to Noon were computed to 0^h. increased, or 24 Hours diminished, by the Equation of Time: And the Moon's Places set down for Midnight were computed to 12^h. increased or diminished by the Equation of Time.

What has been shewn concerning the Equation of Time chiefly respects the Astronomer, the Mariner having little to do with it in computing his Longitude from the Moon's Distances from the Sun and Stars observed at Sea with the Help of the Ephemeris, all the Calculations thereof being adapted to apparent Time, the same which he will obtain by the Altitudes of the Sun or Stars in the Manner hereafter prescribed.

But if Watches made upon Mr. John Harrison's or other equivalent Principles should be brought into Use at Sea, the apparent Time deduced from an Altitude of the Sun must be corrected by the Equation of Time, and the mean Time found compared with that shewn by the Watch, the Difference will be the Longitude in Time from the Meridian by which the Watch was set; as near as the Going of the Watch can be depended upon.

The Equation of Time was computed for the Ephemeris of 1767 from the Table, Page 3d. of Mayer's Tables; but on Account of that Table being made only to the nearest Second without Decimals, and the Neglect of the small Equations of the Sun, the Calculations of that Article in the Year 1767, cannot always be depended upon nearer than Two Seconds. For the Year 1768 and the following Years it will be computed in the strict Manner explained in my Remarks upon that Subject, in the *Philos. Transact.* Vol. liv. P. 342 for the Year 1764; namely, by taking the Difference of the Sun's true right Ascension, and his mean Longitude corrected by the Equation of the Equinoxes in right Ascension, and turning it into Time at the Rate of 1' to 15'. &c. The Equation of Time will be additive or subtractive as the Sun's true right Ascension is greater or less than his mean Longitude.

The Semidiameter of the Sun, Page 3d, is necessary to reduce the observed Altitude of his upper or lower Limb to that
of

of the Centre; also to reduce the observed Distance of the Moon's nearest Limb from the Sun's nearest Limb to the Distance of the Centres. It is also useful to Astronomers to verify or ascertain the Exactness of the Scale of their Micro-meters, by Comparison with the Measure of the Sun's horizontal Diameter. This Practice is particularly useful in solar Eclipses, when the Distance of the Cusps or the Verse Sine of the uneclipsed Part has been measured with the Micro-meter. The Semidiameters of the Sun in Mayer's Tables, on which all the Calculations respecting the Sun and Moon are made, suppose the Semidiameter at the mean Distance to be $16'.2'',8$. which Mr. Mayer says he deduced from above 130 Observations taken with his Six Foot mural Quadrant, which seemed to him not ill adapted to the Purpose. It may not be amiss to take this Opportunity to remark that the Quadrant here mentioned was given to the University of Göttingen by his late Majesty, and was made by Mr. John Bird after the Model of the Eight Foot mural Arch, which he finished for the Royal Observatory at Greenwich, and put up there in the Year 1750. Mr. Mayer made his Observations with his Six Foot mural Arch, from the Year 1756, to the Time of his Decease; with it he settled the mean Obliquity of the Ecliptic to the Beginning of the Year 1756, at $23^{\circ}.28'.16''$. which Dr. Bradley settled by his Observations made in the Years 1750 and 1751, at $23^{\circ}.28'.18''$. The Difference is agreeable to what ought to arise from the gradual Diminution of the Obliquity of the Ecliptic at the Rate of about $\frac{1}{2}$ a Second in a Year. The same Instrument he also used in settling the Elements of his solar Tables; and it is most probable that with the same he settled his Table of Refractions at the End of his solar Tables; the Agreement of this Table with Dr. Bradley's, see Page 2d of requisite Tables, (being both suited to the same Temperature of the Air) is so great, that they seem rather like One and the same than Two different Tables.

The Time of the Sun's Semidiameter passing the Meridian, serves to reduce an Observation of a Transit of the preceding or subsequent Limb over the Meridian to that of the Centre, when only One was observed. It signifies a Portion of apparent Time, or even mean Time, the Difference being absolutely insensible upon so small an Interval. It is found thus: Increase the Sun's Semidiameter in the Ratio of the Cosine of his Declination to the Radius, to find his Semidiameter in right Ascension, which turned into Time at the Rate of $1'$. to $15'$. and $1''$. to $15''$. gives the Time

Time required. The Sun's Semidiameter in right Ascension is readily found by adding the Log. Cosine of his Declination to the logistic Logarithm of his Semidiameter, the Sum is the logistic Logarithm of his Semidiameter in right Ascension; which divided by 15 gives the Time of his Semidiameter passing the Meridian. If the Clock by which the Observation is made be regulated according to sidereal Time, this Quantity must be increased in the Ratio of 365 to 366, if great Precision is required.

From the Time of the Sun's Semidiameter passing the Meridian may be also found the Time of its passing the horizontal or vertical Wire of a Quadrant or Sextant, which on some Occasions may have its Use.—The hourly Motion of the Sun is useful in computing solar and lunar Eclipses; also in correcting the assumed Longitude of the Ship, in order to find the Time from an Observation of the Distance of the Moon from the Sun, independent of the Distances contained in the nautical Ephemeris; See British Mariner's Guide, Page 49, and Table at the End of the same, Page 25, which is also copied at Page 14 of requisite Tables. The Logarithm of the Sun's Distance is useful in the Calculation of the Places of the Planets and Comets. The Place of the Moon's Node signifies its mean Longitude, and is necessary for finding the Equation of the equinoctial Points both in Longitude and right Ascension, the Equation of the Obliquity of the Ecliptic, and the Deviations of the fixed Stars in right Ascension and Declination.

The Eclipses of Jupiter's Satellites are well known to afford the readiest, and for general Practice the best Method of settling the Longitudes of Places at Land; and it is by their Means principally that Geography has been so much reformed within a Century past, and the Position of the most distant Places determined to equal Accuracy with the nearest. It was hoped that some Means might be found of using proper Telescopes on Shipboard to observe these Eclipses, and could this be effected, it would be of great Service in ascertaining the Longitude of a Ship from Time to Time. In my Voyage to Barbadoes under the Direction of the Commissioners of Longitude, I made a full Trial of the late Mr. Irwin's Marine Chair proposed for this Purpose, but found it totally impracticable to derive any Advantage from the Use of it; and, considering the great Power requisite in a Telescope for making these Observations well, and the Violence as well as

Irregularities of the Motion of a Ship, I am afraid the complete Management of a Telescope on Shipboard will always remain among the *Defiderata*. However, I would not be understood to mean to discourage any Attempt founded upon good Principles to get over this Difficulty.

The Telescopes proper for observing the Eclipses of Jupiter's Satellites, are common refracting Telescopes, from 15 to 20 Feet, reflecting Telescopes of 18 Inches or Two Feet, and Telescopes of Mr. Dollond's Construction with Two Object Glasses from Five to 10 Feet; or, which are still more convenient, those of $3\frac{1}{2}$ Feet, which he has lately found a Method of constructing with Three Object Glasses, which are as manageable as reflecting Telescopes, and perform as much as those which he makes of 10 Feet with Two Object Glasses.

The Eclipses of Jupiter's Satellites are observed by Astronomers at Land, as well in order to provide Materials for improving the Theories and Tables of their Motions, as for the sake of Comparison with the corresponding Observations which may be made by Persons in different Parts of the Globe, whereby the Longitude of such Places will be accurately ascertained. It is indeed to be lamented that Persons who visit distant Countries are not more diligent to multiply Observations of this Kind, for want of which, the Observations made by Astronomers on Shore lose Half their Use, and the Improvement of Geography seems to be at a Stand. But it is to be hoped that an Emulation will spring up among those who may have Opportunities of rendering so useful a Service to the Public, to incite them to watch diligently for the Occasions of observing these Eclipses carefully, particularly of the First and Second, which are most exact for the Purpose. The Eclipses carefully calculated and set down in the Ephemeris, will serve to advertise them and Observers in general of the Times when they should attend to these Observations. The Person who shall be under any Meridian different from Greenwich, must turn his Difference of Longitude into Time: See Table Page 6, 7, and 8, and add it to or subtract it from the Time of the Eclipse set down in the Ephemeris, according as he is to the East or West of Greenwich, to find the apparent Time at which the Eclipse will happen at his Meridian, nearly. He must further take care to regulate his Watch or Clock by apparent Time, or at least to know the Difference, as well in order to apprise him of the Time to look out for the

the Eclipse, as for ascertaining the apparent Time exactly at which he shall observe it. Equal Altitudes of the Sun or Stars taken with an astronomical Quadrant afford the best Means of regulating Clocks and Watches for occasional Observations; or they may be taken with a Hadley's Quadrant, by Reflection from a Basin of Water or Quicksilver, or from the Horizon of the Sea, if the Observer has an open Prospect, and is not elevated above 5 or 600 Feet above the Level of the Sea. But, if Opportunity does not admit of taking equal Altitudes, the Time may be determined from One Altitude taken in any of the Methods above mentioned, at least Two or Three Points of the Compass distant from the Meridian, but the nearer to the East or West the better, the Latitude of the Place being known, or being found by Observations of the Meridian Altitude of the Sun or Stars made on Purpose. It will be better to take several Altitudes in order to take a Mean of the Results for greater Certainty. The Manner of computing the apparent Time from the Altitude of the Sun or a Star, will be observed when we come to treat of the Method of finding the Longitude by the Observations of the Distance of the Moon from the Sun and Stars by the Help of the Ephemeris.

The Observer being in a Place whose Longitude is well known, should be settled at his Telescope Three Minutes before the expected Time of an Immersion of the first Satellite; Six or Eight Minutes before that of the second and third Satellites; and a Quarter of an Hour or more before that of the fourth Satellite; chiefly on Account of the Uncertainty of their Theories; but, if the Longitude of the Place is very uncertain, he must begin to look out for the Eclipse proportionably sooner: Thus if the Longitude of the Place is uncertain to 30 Degrees, answering to 12 Minutes of Time, he ought to fix himself to his Telescope 12 Minutes sooner than is mentioned above. Nevertheless when he has observed One Eclipse of any Satellite, and thereby found the Error of the Tables, he may allow the same Correction to the Calculations of the Ephemeris for several Months, which will advertise him very nearly of the Time of expecting the Eclipses of the same Satellite, and dispense with his attending so long.

The Immersions signify the Instant of the Disappearance of the Satellite by entering into the Shadow of Jupiter; and the Emergions signify the first Instant of its Appearance at com-

ing out of the same. They generally happen when the Satellite is at some Distance from the Body of Jupiter, except near the Opposition of Jupiter to the Sun, when the Satellite approaches nearer to his Body. Before the Opposition of Jupiter to the Sun the Immersions and Emerfions happen on the West Side of Jupiter, and after the Opposition on the East Side; but if an astronomical Telescope be used, which reverses Objects, the Appearances will be directly the contrary. Before the Opposition, the Immersions only of the first Satellite are visible; and after the Opposition, the Emerfions only. The same is generally the Case with respect to the second Satellite; both the Phænomena of the same Eclipse are frequently observeable in the Two outer Satellites. The Immersions and Emerfions marked with an Asterisk in the Ephemeris are those visible at Greenwich.

To know if an Eclipse will be visible in any Place, find if Jupiter is 8° , or 10° . above the Horizon of the Place, and the Sun as much below it. This may be done near enough by a celestial Globe: Otherwise, the Time of the Sun's Rising and Setting may be found for any Latitude by a Table of semi-diurnal Arcs, contained in the popular Book called the Mariner's Compass Rectified, and many other Books; the Time of Jupiter's Rising and Setting may also be found from the Time of his passing the Meridian and Declination set down in the Ephemeris, with the Help of the same Table of semi-diurnal Arcs; adding or subtracting the semi-diurnal Arc answering to the same Declination of the Sun: Remembering always that if Jupiter's Declination and the Latitude of the Place are of the same Denomination, the semi-diurnal Arc will be more than Six Hours, and if they are of contrary Denominations, it will be less than Six Hours.

The Immersion or Emerfion of any Satellite being carefully observed in any Place according to apparent Time, the Longitude from Greenwich is found immediately by taking the Difference of the Observation from the corresponding Time shewn in the Ephemeris, which must be turned into Degrees, &c. by Table Page 5, 7, and 8; and will be East or West of Greenwich, as the Time observed is more or less than that of the Ephemeris.

Example: Suppose an Emerfion of the first Satellite should be observed at the Cape of Good-Hope, May 9, 1767, at $30^{\text{h}} 46'. 45''$. apparent Time: The Time by the Ephemeris being

being $9^h. 33'. 12''$. the Difference is $1^h. 13'. 33''$. whence by Table Page, 6, 7, and 8, the Longitude of the Cape should be $18^{\circ}. 23' 15''$. East of Greenwich, because the Time supposed to be observed at the Cape is more than that of the Ephemeris.

It may not be useless here to observe that the Longitude of the Cape of Good Hope $1^h. 13'. 33'' = 18^{\circ}. 23' 15''$. set down in the British Mariner's Guide, is that of the Town; the Latitude also belongs to the same; being both determined from the Observations of Messrs. Mason and Dixon, who went thither under the Direction of the Royal Society, and observed the Transit of Venus in the Year 1761. Hence, by the Help of the Charts, I find the Longitude of the Cape Point or Promontory $18^{\circ}. 45'$. East of Greenwich, and its Latitude $34^{\circ}. 30'$. S. the Longitude of Cape Falso, $19^{\circ}. 15'$. E. and its Latitude $34^{\circ}. 34'$. S. If these Determinations of the Situations of the Cape Point and Cape Falso are in any respect uncertain, it arises from the Imperfection of the Charts I was obliged to make use of, in reducing the Longitude and Latitude from the Cape Town to the Two mentioned Points: For from the near Agreement of the Abbeé de la Caille's Observations with those of Messrs. Mason and Dixon, it is probable that the Situation of few Places is better determined than that of the Cape Town: But if any one has Possession of any Manuscript or printed Charts of these Parts that he thinks may be depended upon, or has any Opportunity of determining the Points in Question relatively to each other from the Comparison of several Journals of Ships, he may perhaps fix these Places with more Certainty than is here pretended to.

It is to be observed that a correspondent Observation of an Eclipse of a Satellite of Jupiter, made under a well known Meridian, is to be preferred to the Calculations of the Ephemeris for comparing with an Observation made in a Meridian whose Longitude is required; but if no corresponding Observation can be obtained, as is frequently the Case, it will be best to find what Correction the Calculations of the Ephemeris require by the nearest Observations to the given Time that can be obtained; which Correction applied to the Calculation of the given Eclipse in the Ephemeris, renders it almost equivalent to an actual Observation.

The Longitudes and Latitudes of the Planets, Page 4, serve to know where to look for them in the Heavens, and when

when their Places may be conveniently settled by comparing them with fixed Stars by the Help of a Micrometer in a Telescope. They also shew when they are in the most important Points of their Orbits, where it is most material to observe them. They also serve to enable Persons less skilled to distinguish them from the fixed Stars. Their Declinations and apparent Time of passing the Meridian are particularly useful to Astronomers who are furnished with Quadrants and Transit Instruments well fixed in the Meridian, in setting their Instruments for observing their right Ascensions and Declinations.

The apparent Time of a Planet's passing the Meridian may be computed thus; the Planet's right Ascension being calculated from its Longitude and Latitude, and turned into Time, subtract the Sun's right Ascension at Noon in Time from it, to find the Time of the Planet's passing the Meridian nearly, which call T; take the Difference of the ☉ and Planets daily Variations in right Ascension in Time; if the Planet is progressive in right Ascension, or the Sum if it is retrograde, which call X; then say, by the Rule of Proportion;

As $24^h \mp X : T :: X : e$ and $T \pm$ will be the correct Time of the Planet's passing the Meridian. The upper Signs are to be used both to X and e if the Planet's progressive Motion in right Ascension be greater than that of the Sun; in any other Case the lower Signs are to be made use of.

But perhaps it may be found more readily by continual Approximation as follows: Take the proportional Part of the Difference or Sum of the ☉ and Planet's daily Motion in right Ascension, answering to the Time of the Planet's passing the Meridian, found nearly, in Proportion to 24^h . and take a further like proportional Part of this proportional Part; and again of this last, and so on as far as is necessary. The Sum of all these proportional Parts added to the Time of the Planet's passing the Meridian found nearly, if the Planet's progressive Motion in right Ascension is greater than that of the Sun, otherwise subtracted, gives the apparent Time of the Planet's passing the Meridian.

Example: Let it be required to find the Time of the Moon's passing the Meridian, July 1 1767.

The Sun's right Ascension in Time July 1st is, $6^h. 40'. 25''$, and July 2^d, $6^h. 44'. 33''$. by the Ephemeris. Therefore his daily Motion in right Ascension is $4'. 8''$. The Moon's right Ascension July 1st at Noon by the Ephemeris, is $159^\circ. 2'$. answering to $10^h. 36'. 8''$. of Time, and July 2^d is, $169^\circ. 39'$. an-
swering

swering to $10^h. 18'. 36''$. The Difference is, $42'. 28''$. of Time, from which $4'. 8''$. being subtracted leaves $38'. 20''$. Subtract $6^h. 40'. 25''$. the Sun's right Ascension July 1st, at Noon from $10^h. 36'. 8''$. the Moon's right Ascension the same Noon; the Remainder $3^h. 55'. 43''$. is the Approximate Time of the Moon's passing the Meridian. The proportional Part of $38'. 20''$ answering to this, is $6'. 17''$ and the proportional Part of $6'. 17''$. is $9''$; therefore $6'. 17''$ and $9''$ or $6'. 26''$ added to $3^h. 55'. 43''$ give $4^h. 2'. 9''$, the apparent Time of the Moon's passing the Meridian. In the Ephemeris it is $4^h. 2'$. It may also be computed by taking the Difference of the Moon's right Ascensions at Noon and Midnight, but then half the Sun's daily Variation in right Ascension must be made use of, and Proportion must be made for 12 instead of 24 Hours: And if the Moon passed the Meridian after Midnight, the Sun's right Ascension at Midnight must be used, which is a Mean between his right Ascensions on the preceding and subsequent Noon. For the Planet's, it will be sufficient to take the first proportional Part only.

The Configurations of Jupiter's Satellites, Page 5, exhibit the apparent Positions of the Satellites with respect to each other, and to Jupiter at such an Hour of the Evening or Night as they are most likely to be observed, and serve to distinguish the Satellites from one another. Jupiter is distinguished by the Mark $\odot$, and the Satellites by Points with Figures annexed, the Figure 1 signifying the first Satellite, 2 the second Satellite, &c. When the Satellite is approaching towards Jupiter, the Figure is put between Jupiter and the Point; and when the Satellite is receding from Jupiter, the Figure is put on the other Side of the Point. The Satellites are in the superior Parts of their Orbits, or furthest from the Earth, when they are marked to the right Hand or West of Jupiter approaching him; or to the left Hand or East of Jupiter receding from him; but are in the inferior Part of their Orbits, or nearest to the Earth, when they are marked to the right Hand or West of Jupiter receding from him, or to the left or East of Jupiter approaching him. The Cypher 0 sometimes annexed to the Figure of the Satellite towards the Margin, signifies that it is invisible on the Face of Jupiter; and the black Mark $\bullet$, signifies that it is invisible, being eclipsed in Jupiter's Shadow, or behind Jupiter, and eclipsed by his Body.

The 7th and 5 following Pages of each Month contain the Moon's Place, and all the Circumstances relating to her Motions,

tions, and her Distances from the Sun and proper Stars, from which her Distance should be observed for finding the Longitude at Sea. The Longitudes, Latitudes, and Declinations of the Moon, and Time of her passing the Meridian, afford the like Uses with the same Circumstances of the Planetary Motions, and many more besides. For the sake of greater Precision, the Moon's Longitude, Latitude, Right Ascension, Declination, Semidiameter, horizontal Parallax, with its logarithmic or proportional Logarithm, are computed twice a Day, to Noon and Midnight, and may readily be inferred to any intermediate Time with the greatest Exactness.

Example: Let it be required to find the Moon's Longitude and Latitude, &c. July 16, 1767, at 16^h. 22' 16". First to find the Longitude. The Moon's Longitude, July 16, at 12^h. is 0°. 6'. 40'. 25". and July 17 at Noon, 0°. 13'. 47'. 48". the Difference 7°. 7'. 23" is the Moon's Motion in 12 Hours; say then, by the Rule of Proportion,

As 12^h. is to 4^h. 22'. 16". (the Excess of 16^h. 22'. 16". above 12^h.) so is 7°. 7'. 23". to 2°. 35'. 41". which added to 0°. 6'. 40'. 25". the Moon's Longitude at 12^h. gives 0°. 9'. 16'. 6", the Moon's Longitude nearly; but this must be corrected on Account of the Moon's unequal Motion in 12 Hours, by Page 11 of requisite Tables; for this Purpose take out of the Ephemeris the Two Longitudes of the Moon next preceding the given Time, and the Longitudes immediately following it, and set them down in Order one after another, as follows.

		1st Diff.	2d. Diff.
	s . o / "	o , "	
July 16, Noon	11. 29. 29. 34.	7. 10 51.	' "
Midnight	0. 6. 40. 58.	7. 7. 23.	3. 28.
17, Noon	0. 13. 47. 24.	7. 3. 39.	3. 44.
Midnight	0. 20. 51. 27.		

Take their Differences, 7°. 10'. 51". 7°. 7'. 23". 7°. 3'. 39". take the Differences of these Differences, or the 2d Differences, 3'. 28". 3'. 44". and take their Mean which is 3'. 36". Now look for the Correction in Page 11 of requisite Tables answering to 4^h. 22' after Midnight, found on the Side, and 3' 36" at Top, 21" will be found under 3'. and 28". under 4'. the Difference is 7". whence 36" will require 4", and the Correction sought is 21" + 4" = 25". which, according to the Remark at the Bottom of the Table, must be added (because

cause the Motion in 12 Hours or first Differences are decreasing to $0^{\circ} 9' 16''. 6'''$. the Moon's Longitude found by even Proportion; whence the Moon's true Longitude is $0^{\circ} 9' 16' 31'''$. and is as correct as the Longitudes from which it is deduced.

N. B. If the first Differences of the Four Longitudes of the Moon taken out first increase and then decrease, or, vice versa, first decrease and then increase, take half the Difference of the Two second Differences for the Mean second Difference, with which take the Correction from Page 11, and add or subtract it as the 1st. first Difference is greater or less than the third first Difference.

To find the Moon's Latitude. Take out of the Ephemeris the Two Latitudes preceding and Two following the given Time, and set them down in Order, and take their first and second Differences, and the mean of the Two second Differences; find the proportional Part of the Middle first Difference answering to the Hours and Minutes, &c. of the given Time after Noon or Midnight; which correct in the following Manner: Entering Table Page 11 with the Hour from Noon or Midnight on the Side, and the mean second Difference at Top, take out the corresponding Number of Seconds, which added to or subtracted from the proportional Part found above, according as the Motion in 12 Hours or first Differences are decreasing or increasing; or, more generally, according as 1st first Difference is greater or less than third first Difference, gives the proportional Part corrected; which now added to or subtracted from the Moon's Latitude at the preceding Noon or Midnight, as the Latitude in these 12 Hours is increasing or decreasing, gives the Moon's Latitude correct.

Example: The Moon's Latitude is required, July 16, 16^h. 22', 16''.

	D's Lat. by the Ephem.	1st Dif.	2d Dif.	Mean of 2d Dif.
July 16, Noon	$4^{\circ} 31' 10''$ N.	$1' 18''$	$1' 18''$	$1' 18''$
Midnight	$4^{\circ} 49' 36''$	$13' 50''$	$4' 36''$	$4' 40''$
17 Noon	$5^{\circ} 3' 26''$	$9' 6''$	$4' 44''$	
Midnight	$5^{\circ} 12' 32''$			

The Moon's Latitude July 16 at Midnight being $4^{\circ} 49' 36''$ N. and the Motion in the next 12 Hours being $13' 50''$, say by Proportion;

As 12^h is to $4^h 22' 16''$, so is $13' 50''$, to $5' 2''$; but this must be corrected by adding $33''$, the Correction from Page 11, answering to the Hour $4^h 22'$, and the Mean Second Difference $4' 40''$, because the first Differences are decreasing, or rather because the first of them $18' 26''$ is greater than the last of them $9' 6''$, therefore the proportional Part corrected is $5' 2'' + 33'' = 5' 35''$, which added to $4^{\circ} 49' 36''$, gives $4^{\circ} 55' 11''$ N. the Moon's Latitude correct.

Remarks on some Circumstances necessary to be attended to, in order to obtain and apply the Correction of second Differences rightly in computing the Moon's Latitude.

I. If the Moon's Latitude taken out of the Ephemeris for Noon and Midnight changes its Denomination from North to South or from South to North, the Sum of the Two Latitudes of contrary Denominations, where the Change happens, is to be accounted the first Difference in that Place.

II. If the Three first Differences first increase and then decrease, or vice versa, first decrease and then increase, Half the Difference of the Two second Differences is to be taken for the mean second Difference.

III. If the Series of Four Latitudes taken out should first increase and then decrease about the Moon's greatest Latitudes, take the Sum of the Two first Differences standing on each Side of the greatest Latitude for the second Difference in that Place; correct the Moon's Latitude at Noon or Midnight by the simple proportional Part first found; and to the Latitude so corrected, add always in this Case the Correction from Table Page 11, answering to the Mean of the Two second Differences.

Before I quit this Subject of Interpolation by second Differences, I shall point out another Method, by which the same End may be obtained more readily, and with fewer Rules, by those who are well acquainted with algebraical Subtraction and Addition, and the Manner of applying the Signs in those Operations. Subtract each Latitude from the following for the first Differences, to which prefix the Sign — if the Latitudes decrease; and subtract each first Difference, thus found, from the following one of the same Order for the second Differences. Half the Sum of the Two second Differences

ferences standing on each Side of the Interval to be interpolated, is to be accounted the mean second Difference; the Correction corresponding to it by Table Page 11, is to be applied always with the contrary Sign.

These Operations are to be performed, and the Signs to be applied as in algebraic Subtraction and Addition. Note further, if the Four given Latitudes change their Denomination, call the second Latitude +, and those of a contrary Denomination —.

The Moon's Declination may be found at any Hour in the same Manner as her Latitude; but as the Correction arising from second Differences will never exceed $2\frac{1}{2}'$, this may be neglected on most Occasions: but if any one is desirous to obtain the Declination true to a Minute, the Correction is easily applied, as shewn above.

The other Articles of Page 7, and 8, viz. the Moon's right Ascension, her Semidiameter, horizontal Parallax, with its Logarithm, and the Distances contained in the Four last Pages of the Month, may be all found correctly by even Proportion, without requiring any Allowance on Account of second Differences. The proportional Part of the Moon's Longitude, &c. for any Hour, may be found very readily by the Help of the Table of proportional Logarithms at the End of the requisite Tables: For which consult the Explanation of those Tables.

The Moon's Longitude and Latitude are used in computing her Distances from the Sun and Stars contained in the Four last Pages of the Month, as well as in the Appulses to Stars pointed out in Page 1, and, jointly with her Parallax and Semidiameter, are necessary for computing the Eclipses of the Sun and Moon, and the Occultations of fixed Stars and Planets by the Moon. They also facilitate the Calculation of the Longitude of any Place from an Eclipse of the Sun, or an Occultation of a Star or Planet by the Moon observed: Or, if the Meridian be well known, the Parallax and Semidiameter serve to deduce the Moon's true Place in the Heavens from the Observation, which compared with that given by the Ephemeris shews the Error of the Tables, whatever it be at that Time. The Moon's Semidiameter and Parallax are applied in correcting almost all Observations of the Moon. The logistic Logarithms of the Moon's Parallax, serve further to facilitate the Calculations of Parallaxes, but if the Table of proportional Logarithms at the End of the requisite Tables be made use,

of, which will be most convenient; the constant Quantity 0.4771 must be added to the logistic Logarithms of the Moon's horizontal Parallax contained in the Ephemeris of 1767, to reduce them to proportional Logarithms. It will be more convenient to substitute proportional Logarithms of the Moon's Parallax instead of the logistic Logarithms in a future Ephemeris.

The Moon's right Ascension and Declination are useful to compute her Altitude at any Time, particularly at the Observation of her Distance from the Sun or a Star, supposing it was neglected to be or could not be observed properly; which latter Case may sometimes happen in the Night, though I think but rarely; the utmost Accuracy not being required for the Calculations of Refraction and Parallax. See British Mariner's Guide, Page 57. The Moon's Declination, with her Semidiameter and Parallax, serve for finding the Latitude by the Meridian Altitude of her upper or lower Limb observed at Sea. See British Mariner's Guide, Page 93. The Moon's right Ascension and Declination serve also to compute the Time from her Altitude observed at the Observation of her Distance from a Star; whence the Longitude may be inferred, though no Altitude of the Sun or a Star was taken for regulating the Time. See British Mariner's Guide, Page 61.

The Distances of the Moon from the Sun and fixed Stars, contained in the Four last Pages of the Month, are set down to every Three Hours of Apparent Time by the Meridian of Greenwich, and are designed to relieve the Mariner from the Necessity of a Calculation, which he might think prolix and troublesome, and to enable him, when compared with the same Distances observed carefully at Sea, to infer his Longitude readily and with little Danger of Mistake to a Degree of Exactness that may be thought sufficient for most nautical Purposes. But useful and valuable as the Practice of this Method may be at present, it is a Remark not unworthy our Notice, that there is Room to hope, by future Improvements of the Lunar Tables, and the Introduction of a more accurate Method of constructing Instruments, it may be carried to a much higher Degree of Perfection.

The Moon's Distance are computed both from the Sun and proper Stars, and generally from One Object on each Side of her, to afford the Mariner a greater Number of Opportunities of Observation, and a Means of attaining a greater Degree of Exactness. The Distances from the Sun

are computed between 40° and 120° of Distances. While the Moon is between the Distances of 20° and 40° from the Sun, her Distance is computed only from a Star on the contrary Side that the Sun is. When she is between the Distances of 40° and 90° from the Sun, her Distance is computed both from the Sun and from a Star on the contrary Side to the Sun; when the Moon is above 90° from the Sun her Distance is computed from Two Stars, one on each Side of her; though still her Distance is computed also from the Sun from 90° to 120° . Though the Distance of the Moon from the Sun or Star, well observed with a good Instrument, is sufficient to determine the Longitude, with the Help of the Ephemeris, always within a Degree, and generally much nearer, yet it will conduce to still greater Accuracy, if the Observer takes the Distance of the Moon from Two Stars, or the Sun and a Star, or, when the Moon is between 90 and 120° Distance from the Sun, from the Sun and Two Stars, if he can be so lucky as to obtain these several Observations.

The Longitude being computed from the Observations made with each Star respectively, the Mean of the Results is to be taken as probably approaching nearest to the true Longitude. In particular the Moon's Distance should be taken from Two Stars, or the Sun and a Star on each Side of her, as often as Opportunity permits, since the Mean of the Results will probably be at least as exact again as either separately, I mean as far as depends on any Imperfection of the Instruments, and unavoidable small Errors arising in the Use of them; Errors of these Kinds having a natural tendency to correct each other; for that small Error which arises from the lunar Tables will affect the Result from either Star equally. But the Error of Mr. Mayer's last lunar Tables here made use of, scarce ever exceeding $1''$ at the most, and seldom amounting to $20''$. the Uncertainty hence arising in the Determination of the Longitude can scarcely exceed half a Degree, and generally will not exceed 10 Miles.

The Distances set down in the Ephemeris, afford the Observer a ready Means of knowing the Star from which the Moon's Distance is to be observed; for he has nothing to do but to set his Quadrant to the Distance computed roughly from the Ephemeris, neglecting the Seconds, at the apparent Time estimated nearly by the Meridian of Greenwich; and direct his Sight to the East or West of the Moon, according as the Distance at Greenwich is found in Page 9 and

10,

10, or in Two last Pages of the Month; and having found the Moon upon the little Speculum, let him give a Sweep with the Quadrant to the Right and Left, and he will find the Star he seeks for, if above the Horizon and the Air be clear, nearly in a Line perpendicular to the Line of the Moon's Horns or longer Axis, or, which is the same Thing, in the Line of the Moon's shorter Axis produced. The Star is always one of the brightest, so that there is little Danger of mistaking another for it, if the preceding Directions are carefully observed. The Time at Greenwich is estimated nearly by turning the supposed Longitude from Greenwich into Time, by Table Page 6, 7, and 8; and adding it to or subtracting it from the Apparent Time at the Ship, as its Longitude is West or East of Greenwich. It will be sufficient if the Distance be computed from the Ephemeris within 10' or 20' for setting the Quadrant. The principal Use of the Distances of the Moon from the Sun and fixed Stars; namely, in determining the Longitude by Comparison with the corresponding Distances observed at Sea, will be shewn hereafter in its proper Order, in the Dissertation explaining the Method of computing the Longitude at Sea by the Help of the Ephemeris.

The Distances contained in the Ephemeris were computed strictly to Noon and Midnight, and thence interpolated for every Three Hours, according to the Method shewn for computing the Moon's Latitude, Page 17—19: Except that the Correction of second Differences at the Middle of the Interval to be interpolated, was taken $\frac{1}{4}$ of the Mean of the Two second Differences, and at the first and third Quarter of the Interval was taken $\frac{1}{2}$ of the Correction just found at the Middle of the Interval; instead of consulting Table Page 11, which would however have given the same Result. But, at the first 12 Hours when the Distances of the Moon from a Star begin, and the last 12 Hours when the Distances end, there being only One second Difference instead of Two second Differences on each Side to take a Mean of, this Method fails in these Cases, and therefore the following is to be substituted in its stead, being derived from Sir Isaac Newton's Solution of the Problem of drawing a Curve through the Extremities of any Number of given Ordinates. Phil. Nat. Princ. Math. Page 486. Edit. ult.

From Four Distances at Noon and Midnight computed strictly, to interpolate Three Distances at the 3d, 6th, and 9th Hour of the first or last Interval.

Subtract

Subtract each Distance from the following, for the first Differences, and prefix the Sign —, if the Distances decrease. Subtract each first Difference thus found from the following one of the same Order, for the second Differences: And in like Manner subtract the first 2d Difference from the following for the third Difference; applying the Signs as in algebraic Subtraction. Denote the first or last first Difference by b , the first or last second Difference by c ; according as the Interpolation to be made is for the first or last 12 Hours, denote also the third Difference by d ; and, a being put to signify the Distance at the Beginning of the Interval, the interpolated Distances will be as follows:

At 3d Hour of first Interval	$a + \frac{1}{4}b - \frac{3}{32}c + \frac{7}{128}d$
At 6th Hour of first Interval	$a + \frac{1}{2}b - \frac{1}{8}c + \frac{1}{16}d$
At 9th Hour of first Interval	$a + \frac{3}{4}b - \frac{3}{32}c + \frac{5}{128}d$
Or	
At 3d Hour of last Interval	$a + \frac{1}{4}b - \frac{3}{32}c - \frac{5}{128}d$
At 6th Hour of last Interval	$a + \frac{1}{2}b - \frac{1}{8}c - \frac{1}{16}d$
At 9th Hour of last Interval	$a + \frac{3}{4}b - \frac{3}{32}c - \frac{7}{128}d$

In adapting these Formulæ to Numbers, great Care must be taken about the right Application of the Signs. Thus if b , c or d is Negative, apply the Number expressing the Value of that Term of the Formula where it is found with a contrary Sign to that of the Formula.

Let me add in this Place, that if in filling up the first and last Intervals, a new second Difference has been supposed in arithmetical Progression with the Two given ones, in order to take a Mean between it and the first or last second Difference, the Interpolation at the Middle of the Interval or 6th Hour will be had true, the same as if the above Formulæ had been used: But at the Interpolation of the first and third Quarter there will be an Error of $\frac{1}{128}$ third Difference; which will be corrected, by applying $+\frac{1}{128}d$ or third Difference, to Number found at the first Quarter of the Interval, and $-\frac{1}{128}d$ to that found at the third Quarter of the Interval; equally the same whether it be the first or last Interval.

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